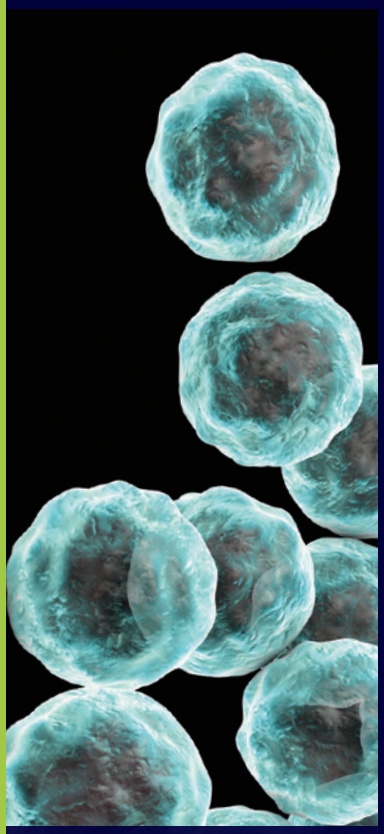
Volume 70, Number 2 Spring/Summer 2019 $6.95

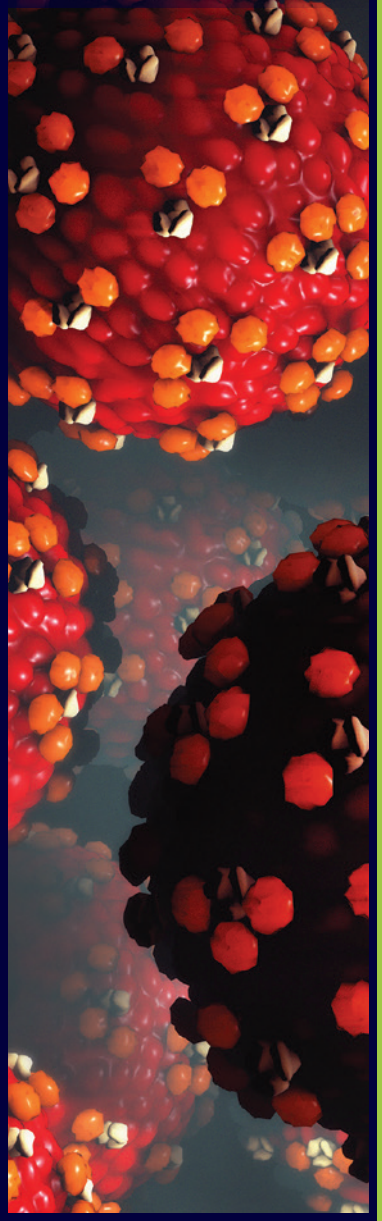
Sonoma Medicine

INFECTIOUS DISEASES

PUBLIC HEALTH FOCUS ON STDs

VACCINE DEBATE



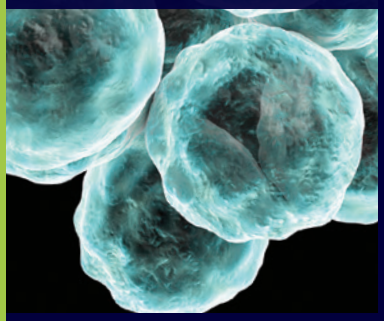


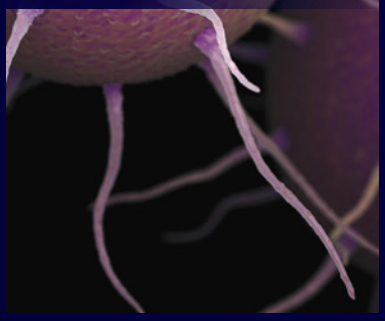
DEPARTMENTS

DISEASE-FREE TRAVEL

KINDERGARTEN READINESS

MEDICAL ARTS





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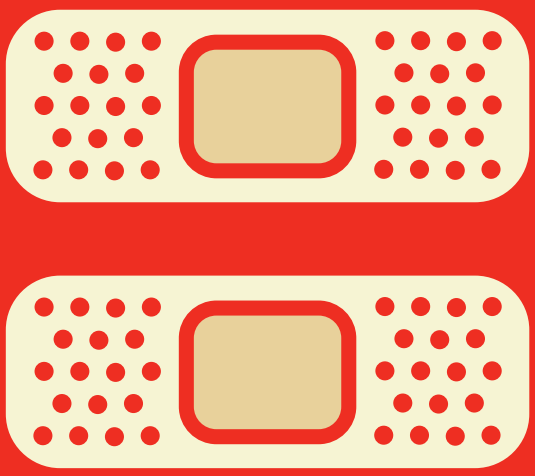

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Volume 70, Number 2 Spring/Summer 2019

Sonoma Medicine

The magazine of the Sonoma County Medical Association and the Mendocino-Lake County Medical Society

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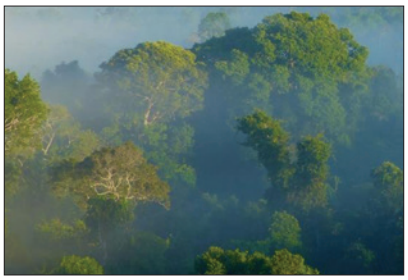

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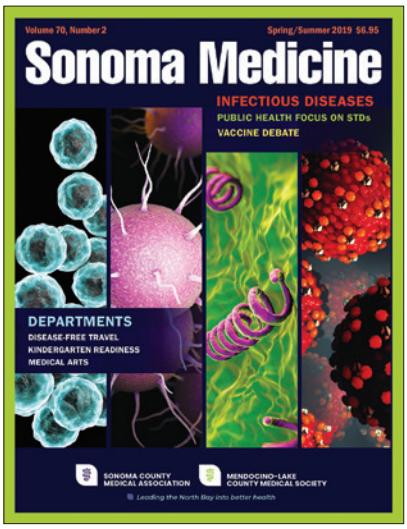

Cover montage: Artists' renderings of chlamydia, gonorrhea and syphilis bacteria and measles virus.
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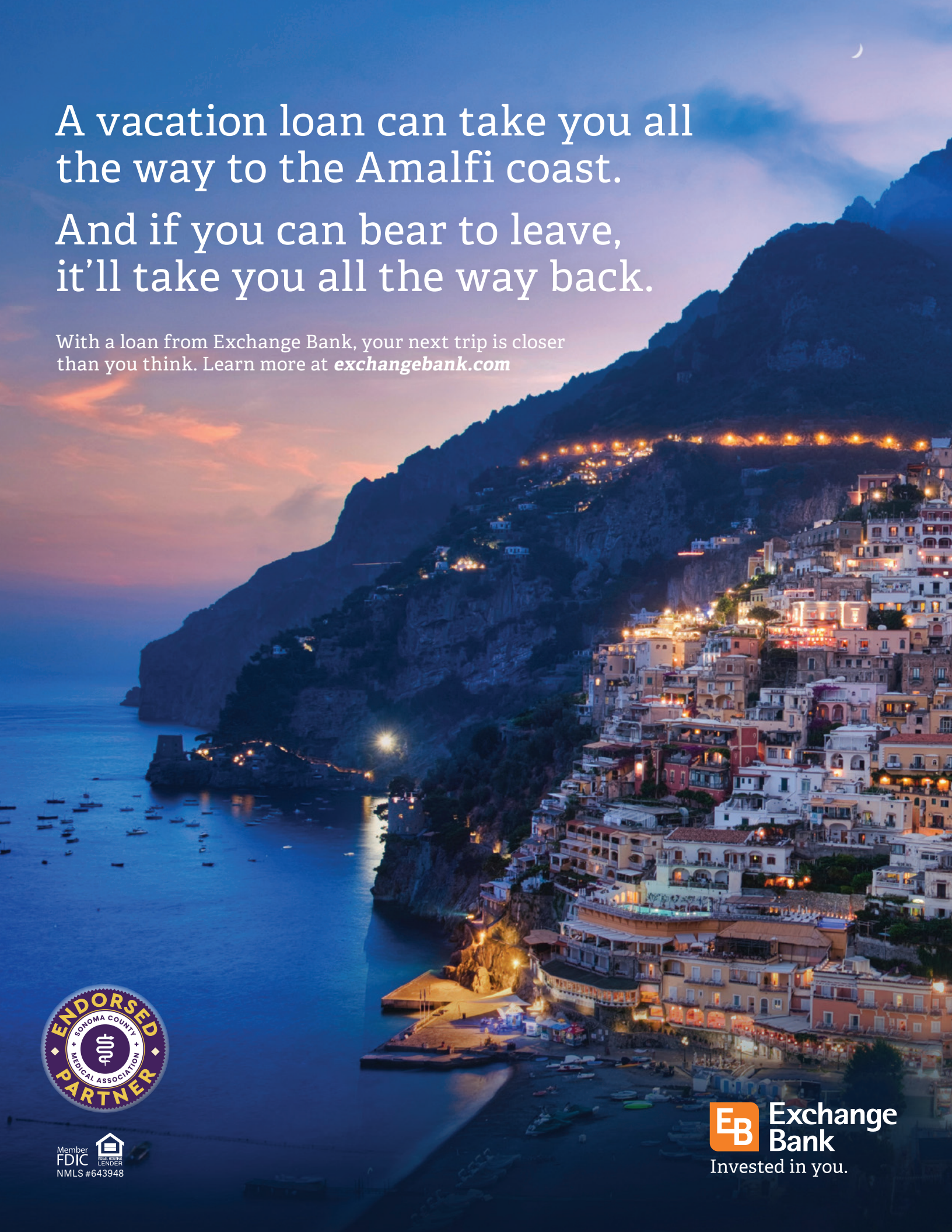
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MLCMS is recruiting new leadership! Please contact Executive Director Wendy Young at 707-525-4141 to indicate your interest.

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Mission: To enhance the health of our patients and community; promote quality, ethical healthcare; and foster strong patient-physician relationships and the personal and professional well-being of physicians through leadership, partnership and advocacy.

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Mission: To promote and develop the science and art of medicine and the care and well-being of patients; conserve and protect the health of the public; and promote the betterment of the medical profession.

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SCMA Membership

Active members 621
Residents 43
Retired 253

MLCMS Membership

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Retired 29

See page 32 for new members.

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Infectious Illness, Safe Travel, and Much More

We hope that this issue finds you well, and that you're enjoying the abundant blooms and new growth of spring. Our Executive Director, Wendy Young, has many activities planned to get us outdoors, to connect with our community and to each other. Please check out the new and improved SCMA website for all of the happenings of our association. In the meantime, sit back and enjoy this issue of *Sonoma Medicine*.

Earlier this year, we welcomed the opportunity to provide administrative support to the Mendocino-Lake County Medical Society. *Sonoma Medicine* will include news and events for our North Bay colleagues, beginning with the letter from MLCMS President Dr. Jay Joseph. Please join me in extending a warm welcome to Dr. Joseph and the entire MCLMS membership.

Sonoma Medicine's staff has been busy researching pressing issues to our community and is eager to share these with you. Dr. Brian Prystowsky's very timely and extremely important "Vaccine Debate: More Education, Less Confrontation," outlines how four of the top 10 California grade schools with the highest percentage of kindergarten students claiming medical exemptions from vaccinations are located in Sonoma County. He emphasizes that emotions on both sides of the vaccine debate need to be calmed in favor of science and education.

Also, this issue leads off with a comprehensive article by Drs. Gary Green and Karen Holbrook on the explosion of sexually transmitted infections in Sonoma County. In the past 10 years, the county has recorded a 227 percent increase in chlamydia cases, a 600 percent increase in gonorrhea cases, and a staggering 3,300 percent increase in early syphilis cases. Drs. Green and Holbrook are to be saluted for the extensive research and reporting that went into their authoritative piece. Please read their article in order to be up to date on the alarming outbreak of STDs.

Dr. May is serving as SCMA president in 2018-2019. She is assistant chief of surgery at Kaiser Permanente Santa Rosa.

Dr. Allan Bernstein pens a fascinating piece on the history of malaria in the United States, and follows the origins and spread of this infectious disease from the 1500s to the Revolutionary War, construction of the Erie Canal, the Civil War, WWII, and beyond. His piece is a must-see for those desiring background on how we arrived at our current state.

Can travel-acquired illnesses be avoided? Santa Rosa-based naturalist Michael Ellis thinks so. He has been leading trips to a variety of exotic locales such as the Amazon and the Serengeti over the last 40 years, and reports that he has yet to have one of his guests fall ill to a serious infectious disease, including malaria, due in large part to his adherence to strict health protocols. This is a useful and informative article, especially for those planning travel to remote parts of the world.

Who's ready for kindergarten? The piece by Jeff Miller, MD, and Michele Rogers, PhD, "Starting Kindergarten: Ready or Not?," concerns school readiness for our young ones. The authors point out that brain and child development research demonstrates that experiences during the first five years of life lay the groundwork for everything that comes later. This growth and increasing organizational complexity of the brain are the biologic basis for school readiness abilities.

Next, stop and enjoy the "Medical Arts" feature showcasing the extraordinary, detailed wood artistry of Dr. Donald Jereb. After retiring from a 26-year career in anesthesiology at Kaiser Permanente Santa Rosa, Dr. Jereb focused his talents on creating these works of art. For those who appreciate the intersection of architecture, design, and art, his interpretation of Gerrit Rietveld's iconic "Red and Blue Chair" is a sight to behold.

Lastly, appearing on page 9 is an insightful piece by Dr. Misty Zelk. She offers a sobering editorial about the developing crises within America's healthcare workforce. Dr. Zelk outlines how physicians are leaving practice for a variety of reasons, the primary ones being excessive documentation requirements and the EMR. She notes that this is occurring at a critical time, because the United States already suffers from a shortage of physicians. This shortfall is predicted to worsen to a deficit of 100,000 doctors by 2030. At the end of her piece, Dr. Zelk invites reader feedback, which I encourage you to do, so your voice on this issue can be heard.

Sonoma Medicine continues to be the premier communications platform for North Bay physicians, and the issue in your hands continues the publication's tradition of excellence. Along with the physician contributors to this issue, our thanks go to SCMA Executive Director and Publisher Wendy Young and her staff, and the editorial board as led by Dr. Allan Bernstein, for adhering to the highest standards in a publication that serves as our collective voice. Way to go, team! Please reach out and let the team know you are reading *Sonoma Medicine*.

Let's read on,
Tricia May

Mendocino-Lake County Medical Society Teams with SCMA

We were very pleased to learn earlier this year that Wendy Young and her team at SCMA agreed to partner with the Mendocino-Lake County Medical Society in support of Mendo-Lake's efforts to retain and grow our membership and support services here on the North Coast.

SCMA has strengths that exceed Mendo-Lake's limited reach, including a strong staff, capable administrative support, more robust financial resources, and proactive management supplied by Executive Director Wendy Young.

The North Coast faces a unique set of challenges. While many physicians are initially drawn to the region because of its striking natural beauty and "small-town" feel, for a variety of reasons it can be a daunting prospect for a new doctor to build a substantial medical practice here that will be sustainable over time. Often, medical employers are able to draw newly minted doctors here with a two-year employment contract. When that agreement expires, the physician can be faced with a patient population that is both limited in size and weighted on the higher end of the aging spectrum, raising questions about establishing a long-term practice that can endure.

The numbers tell the story. Mendocino County has a population of about 87,000, and Lake County's population is approximately 64,000. In stark contrast, Sonoma County boasts a population of over a half million people. While physicians are caregivers, by both their nature and their considerable training, the fact is that they still have to be able to make a living, and to support their families. A sufficient pool of potential patients is essential to that goal.

Dr. Joseph is a radiation oncologist in Ukiah and serves as president of the Mendocino-Lake County Medical Society.

So physician retention here on the North Coast, along with physician recruitment to our beautiful slice of Northern California, will be initiatives where SCMA's considerable resources will be of great assistance to us. SCMA already has a proven physician-retention track record, most recently demonstrated in the wake of the 2017 Tubbs fire. Even before that devastating firestorm was entirely extinguished, Wendy Young and her staff had already set up a housing-referral database, enabling Sonoma County physicians who had lost their homes to find new, temporary housing until the rebuilding process could commence.

For the physician who can establish a long-term practice here in Mendo-Lake, the quality of life is hard to beat.

Despite the challenges here in Mendo-Lake, for the physician who can establish a long-term practice, the quality of life in our region is hard to beat. From the spectacular Mendocino coast with its romantic beaches and historic lighthouses; to our majestic forests, to wine-tasting, kayaking, and horseback riding; to the great fishing, hiking, and natural beauty of Lake County—the work/life balance one can realize in our corner of the state is without peer.

In the end, teaming with SCMA is a natural fit for our medical society. In the past we in Mendo-Lake were urged to pool resources with another medical association based in rural Northern California. But that would have been a poor fit for several reasons, and primarily because Mendo-Lake's patient-referral pattern is regularly directed toward Sonoma County, which has the benefit of several hospitals, a robust medical infrastructure, and a much larger, talented group of medical specialists that we lack here up on the North Coast.

MLCMS is seeking volunteers to fill open board positions, and Mendo-Lake's current executive committee members, including Karen Tait, MD, immediate past president, and Bruce Andich, MD, secretary/treasurer, join me in saying that we are excited to team with SCMA, which will provide additional support to physicians here on the North Coast. After all, we are working toward a goal CMA members statewide all share: to take care of the needs of our physician population in California, so our physicians in turn can be freed up to provide the best possible care to their patients.

Email: Jay.Joseph@stjoe.org

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The *Business* of Medicine Is Hurting Patients—and Killing Physicians

Misty Zelk, MD

The healthcare "elephant in the room" that everyone wishes to avoid discussing is that physician caregivers in this country are experiencing higher degrees of burnout, depression, and suicide than ever before. Far too many feel isolated, despondent, and angry, and surveys indicate nearly half of our physician population is considering leaving the profession altogether.

These highly trained and empathetic individuals spent the first 30 years of their lives following intensive courses of study, testing, and rigorous training, only to bitterly discover that in today's medical environment, they are prevented from doing what they prepared for, and love: providing quality care for their patients.

Every day of the year a physician commits suicide in the U.S., which is the highest suicide rate of any profession in the country. Physicians are twice as likely to take their own lives as are members of the general population.

What is happening? While articles and surveys like to point to factors such as a decreasing number of spots for new residents, competitiveness, long hours, lack of sleep, and substance abuse, to me those are entirely valid but secondary concerns or, perhaps, side effects.

The level of documentation required of physicians in today's environment is, to put it bluntly, insane. For every hour we spend providing primary care to our patients, we spend two hours on documentation and forms. The electronic medical records (EMR) system compels physicians to act as recording clerks, taking down additional information for quality records and tracking data. And other burdensome paperwork, required by insurance companies that are accountable to no one and yet wield enormous influence, is often provided by physicians on their own time, for free. After all, we do not wish to shortchange the time spent with our patients, so that is the sacrifice we make on their behalf.

Dr. Zelk serves as medical director for Healdsburg Physician Group and is on the editorial board of Sonoma Medicine.

The uncomfortable reality is that, driven by the requirements of the insurance industry and EMR record-keeping, the *business* of medicine has taken priority over the people we were trained to help: our patients. That is the reason for the title of my editorial. Those two hours of paperwork daily per patient could be infinitely better spent providing the care we trained so long to provide, and that our patients rightly expect. This harm is compounded by the fact that there is already a nationwide shortage of both primary and non-primary care physicians. One study predicts that by 2030, the U.S. will face a shortage of over 100,000 physicians.

While psychiatrists refer to the current phenomenon as physician "burnout," a growing segment of physicians' preferred term for the pain and isolation experienced by today's providers is "moral injury." This refers to an injury to an individual's moral conscience, resulting from an act of perceived moral transgression that produces profound shame. The concept of moral injury emphasizes the psychological, cultural, and spiritual aspects of trauma. Moral injury is a normal human response to an abnormal event. In this case, the injury occurs by extorting physicians to place time-consuming bureaucratic form-filling toward the top of the work-hierarchy pyramid, rather than near or at the bottom.

What is to be done? The answers to that question will likely take years, and must come from fully informed policymakers who are empowered to put patients first. But one thing is clear: if we don't act, the insurance-industry/record-keeping colossus that is trampling our profession will continue to endanger the lives of both the patients in our care, and the people trained to improve and save their lives.

* * *

A side note: *Sonoma Medicine*'s value to the local medical community cannot be overstated. In addition to providing our physicians a platform to share their experiences, it serves very effectively to combat the problem of physician isolation I write about above. The magazine is a resource that regularly draws us out of our work "silos" toward the realization that we are part of a larger community of like-minded, dedicated health professionals, all facing similar challenges.

I urge my fellow North Bay physicians to make use of this important shared resource by contributing their stories for possible publication, and I welcome your feedback to this editorial at my email address below.

Email: mzelk@nschd.org

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Explosion of Sexually Transmitted Infections in Sonoma County

Gary Green, MD, FIDSA, and Karen Holbrook, MD, MPH

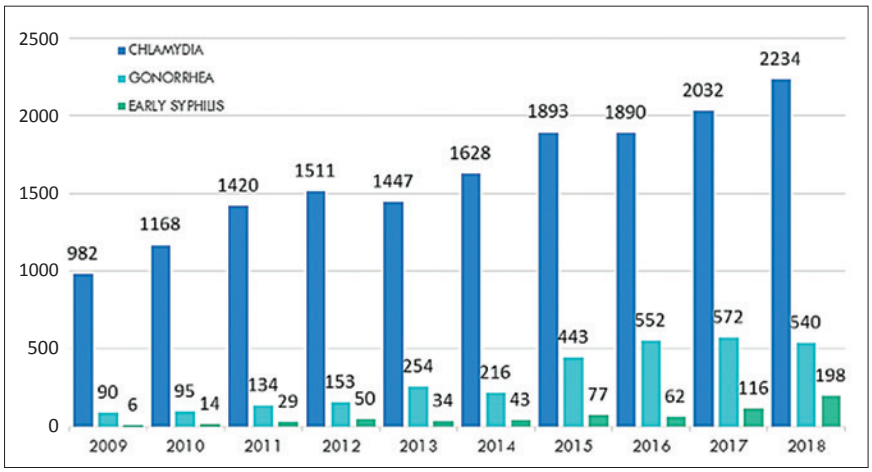

Figure 1. Selected Sexually Transmitted Infections, Sonoma County, 2009–2018.
Source: *Sonoma County Department of Health Services.*

Over the past decade we have seen a dramatic and steady increase in syphilis, gonorrhea, and chlamydia infections, both nationally and locally. Over the same 10-year period, Sonoma County has recorded a 227% increase in chlamydia cases, a 600% increase in gonorrhea cases, and a staggering 3,300% increase in early syphilis cases (see Figure 1). Stated another way, the reported cases of chlamydia are two point three times greater; the cases of gonorrhea six times greater; and the reported cases of syphilis 33 times greater, than those reported 10 years ago.

Dr. Green specializes in infectious diseases for Sutter Medical Group of the Redwoods. Dr. Holbrook serves as Sonoma County's interim health officer.

However, as sexually transmitted infection (STIs) can be asymptomatic, underdiagnosed, or difficult to diagnose, reportable data likely *underestimates the community STI burden* of disease. The complications of STIs are protean (see Table 1), sometimes leading to substantial morbidity and even fatalities. In addition, the inflammatory nature of STIs, especially the ulcerative STIs (painless syphilis chancre, painful chancroid ulcer of *Haemophilus ducreyi*, and shallow painful HSV ulcers), substantially increases the risk of HIV transmission.[1] Paradoxically, HIV has stabilized and is trending down nationally[2] and in Sonoma County. In urban epicenters like San Francisco,[2,3] decreases in HIV transmission have been historic and impressive, as well as hopeful, to the HIV story. The interaction and behaviors leading to these trends is fascinating, not always intuitive, and a source of robust clinical and policy discussion.

This article will focus on epidemiologic trends of syphilis (*Treponema pallidum*), chlamydia (*Chlamydia trachomatis*), gonorrhea (*Neisseria gonorrhea*), and HIV in Sonoma County as well as nationally. There are other important STI pathogens (Table 2), some of which are reportable to public health under Title 17 legislation, and others that are not reportable but very clinically relevant. Documented unusual STI pathogens (e.g., sexually transmitted *Shigella*[4] and *Campylobacter*[5] outbreaks in the men who have sex with men [MSM] category) are not included on Table 2. Detailed treatment of STIs is outside the scope of this article, but the 2015 CDC STI treatment guidelines[6] are available online, and Table 3 provides a synopsis of chlamydia, gonorrhea, and syphilis treatment. Of note, national STI data from the CDC are updated up to 2017, while Sonoma County Public Health data is updated to 2018.

Syphilis

The primary and secondary (P&S) stages of syphilis are the most infectious. Syphilis had reached an historic low in 2000, but national rates have increased

Table 1. Some of the Complications from Sexually Transmitted Infections.
Source: *Sonoma County Department of Health Services.*

STI ASSOCIATED SYNDROME	STI ETIOLOGY
Reactive arthritis	*C. trachomatis* (and other non-STI pathogens)
Reiter syndrome (arthritis, uveitis, and urethritis)	*C. trachomatis*
Proctitis	*C. trachomatis* (LGV serovars), *N. gonorrhea*
Epididymitis	*C. trachomatis, N. gonorrhea, T. vaginalis*
Bartholinitis	*C. trachomatis, N. gonorrhea*
Female/male infertility	C. trachomatis, N. gonorrhea, T. vaginalis
Pelvic Inflammatory Disease (PID)	*C. trachomatis, N. gonorrhea, M. genitalium, T. vaginalis*
Perihepatitis (Fitzhugh-Curtis syndrome)	*C. trachomatis* (often with PID)
Ectopic Pregnancy	*C. trachomatis*
Stillbirth, prematurity, congenital manifestations	*T. pallidum,* Zika virus, HIV
Conjunctivitis (newborn and adult)	*C. trachomatis, N. gonorrhea,* HSV
Erythema multiforme	HSV
Alopecia	*T. pallidum*
Ophthalmic impairment including blindness (anterior, posterior and panuveitis, optic neuritis)	*T. pallidum* (neurosyphilis)
Chorioretinitis	*T. pallidum,* HSV
Acute Retinal Necrosis	HSV (also varicella zoster virus as non-STI)
Otic impairment (hearing loss)	*T. pallidum* (neurosyphilis)
General paresis (dementia paralytics)	*T. pallidum* (tertiary syphilis)
Tabes dorsalis (locomotor ataxia)	*T. pallidum* (tertiary syphilis)
Aortitis (ascending aorta aneurysm, aortic valve regurgitation)	*T. pallidium* (tertiary syphilis)
Thrombosis, ischemia, infarction of the brain and/or spinal cord	*T. pallidium* (meningovascular syphilis)
Encephalitis	HSV (type 1)
Squamous Cell Carcinoma (cervix, penis, anus)	Human Papilloma Virus (HPV)
Cirrhosis and Hepatocellular Carcinoma	Chronic Hepatitis B and C
Immune deficiency, opportunistic infections and malignancies	HIV

every year since. In 2017, there were 30,644 cases of early syphilis reported nationally, representing a 10.5% increase from the previous year, and a 76% increase since 2013.[7] Sonoma County reported 198 cases in 2018, representing a 57.5% increase from the previous year, and a bewildering 3,300% increase in early syphilis in the past 10 years.

Populations with risk status for syphilis include HIV positive patients, MSM, pregnant women (especially of ethnic minority), methamphetamine and opioid substance users,[7,8] and some homeless communities in Sonoma County. Among national P&S syphilis cases with known HIV status, 45.5% of MSM, 8.8% of men who have sex with women (MSW), and 4.5% of women were HIV-positive in 2017.[7,8] Since 2000, the national rise in P&S syphilis rate was primarily attributable to increased cases among men, accounting for 87.7% of all cases, with the highest risk category in MSM (79.6% of men).[7,8] Online dating has proven an historical risk for syphilis. As far back as 1999, the San Francisco Department of Public Health traced a syphilis outbreak among MSM to an online chatroom.[9] Since 2013, the epidemiology has shifted to include rising cases in MSW and an alarming *doubling of cases in women*.[7] Female cases have consequently given rise to a striking increase in congenital syphilis, which tragically includes fetal and newborn fatalities. The national 2013 rate of congenital syphilis (9.2 cases per 100,000 live births) marked the first increase in congenital syphilis since 2008. In 2017, 918 cases of congenital syphilis were reported to the CDC, including 64 syphilitic stillbirths and 13 infant deaths.[7]

In Sonoma County, syphilis has been found historically in men (mostly MSM), and then a few sporadic cases were reported in women from 2012 to 2016, with isolated congenital syphilis cases in 2014 and 2015. Figure 2 demonstrates the continued rise in the rates of syphilis infection in Sonoma County, with a new alarming increase in women in 2017 (15 cases) and 2018 (43 cases) that have included three cases of congenital syphilis—but fortunately, no fatalities. Sonoma County is also tracking and addressing outbreaks of syphilis in a few of the local homeless communities. Seventy-three of the 198 cases of early syphilis in 2018 in Sonoma County were reported in shifting communities of homeless individuals, many of whom use methamphetamines. Attention to medical treatment, contact investigations, and appropriate vaccinations to this population are an intense focus of our public health-coordinated efforts. State Bill 1152 and California Health & Safety Code 1262.5 support testing, treatment, and vaccination of all homeless patients for specific transmissible diseases, including STIs, when they are seen in emergency departments and when hospitalized.[10]

Chlamydia and Gonorrhea

Chlamydial infections are often asymptomatic[11] resulting in underdiagnosing and, sometimes, late sequelae from untreated infections (Table 1). That

said, nationally and locally, *Chlamydia trachomatis* and *Neisseria gonorrhea* are the first and second most common notifiable infections, respectively.[7] With 1.7 million cases of chlamydia reported nationally in 2017,[1] chlamydia cases increased 6.9% from the previous year, and 22% from the previous five years.[7] Nationally, chlamydia rates of infection increased in both men and women, with the highest reported group being adolescent and young adults, and increased ~40% in MSM from 2013 to 2017.[7] Locally, 2,234 cases of chlamydia were reported in Sonoma County in 2018, an increase of 9.0% in one year, 35.2% in five years, and 227% in the past 10 years.

Nationally, 555,608 cases of gonorrhea were reported in 2017, an increase of 18.6% from the previous year and 67% since 2013.[7] Five hundred and forty cases of gonorrhea were reported in Sonoma County in 2018, an increase of 212% in the previous five years, and a 600% increase in the previous 10 years. In 2018, 52% more men than women in Sonoma County tested positive for gonorrhea. The continued evolution of the antibiotic resistance of *Neisseria gonorrhea* is very concerning. We are now limited to a single CDC recommendation comprising a combination of IM ceftriaxone and PO azithromycin.[11] Azithromycin and ceftriaxone in vitro sensitivity is waning to *Neisseria gonorrhea,* with fully resistant isolates reported in 2018 in Australia[12] and the United Kingdom.[13] With global travel, multi-drug resistant (MDR) and even extensive drug resistant (XDR) *Neisseria gonorrhea* may be inevitable in the very near future in the USA.

Sexually active women under 25 years of age and sexually active MSM are targeted populations for screening by national guidelines,[14] and the CDC recommends more comprehensive testing of urethral and pharyngeal and rectal sites of men and women engaging in oral and rectal sex.[7,15] If we as clinicians do not ask about these behaviors, then we won't know to test these sites. Providers testing only urethral gonorrhea/chlamydia in the MSM community will miss 80% of these STIs. Urethral/pharyngeal/rectal testing swabs for the combined gonorrhea/chlamydia PCR or NAAT probes is the standard of STI testing in the MSM risk group, in addition to comprehensive HIV, syphilis, and Hepatitis A/B/C serology testing. Bundling STI testing for HIV, syphilis, gonorrhea/chlamydia, and hepatitis A/B/C viruses is prudent to ensure safer sexual health in all risk categories of patients. Based on hepatitis A and B serology, nonimmune patients can be immunized and protected.

The magnitude of STI increase among men and women suggests increased transmission and/or increased testing, e.g., increased extra-genital screening among MSM.[7] Distinct risk behaviors (e.g., condomless sex, alcohol/drug use with and for sex), expanding sexual networks,[8,16,17,18] and more recently, online dating often co-occur, thereby amplifying risk for STIs.[19] In the British NATSAL-3 study, high risk STI behaviors associated with online dating included condomless sex and concurrent and higher partner numbers.[19] Online dating and GPS smartphone dating apps provide convenient access to a greater number of potential sex partners, and also may facilitate greater mixing of partners of different ages, genders, ethnicities, and other demographics.

Table 2. Title 17 Public Health Reportable Sexually Transmitted Infections (STIs).
Source: *Sonoma County Department of Health Services.*

REPORTABLE STIs	NON-REPORTABLE STIs
Chancroid *(Haemophilus ducreyi)*	Herpes Simplex Viruses (HSV) 1 and 2
Chlamydia trachomatis (including LGV)	Trichomoniasis *(Trichomonas vaginalis)*
Gonorrhea *(Neisseria gonorrhea)*	*Mycoplasma genitalium*
Syphilis *(Treponema pallidum)*	Human Papilloma Virus (HPV)
Hepatitis A (acute infection)	Donovanosis or Granuloma Inguinale *(Klebsiella granulomatosis)*
Hepatitis B (acute or chronic)	Pediculosis Pubis or Pubic Lice *(Phthirus pubis)*
Hepatitis C (acute or chronic)	Scabies *(Sarcoptes scabei* var. *hominis)*
Human Immunodeficiency Virus (HIV)	
Zika virus infection	

Table 3. *Treatment of uncomplicated Chlamydia, Gonorrhea and Syphilis in adults.*[29]*
Source*: Sonoma County Department of Health Services.*

SEXUALLY TRANSMITTED INFECTION	ANTIBIOTIC TREATMENT
Uncomplicated chlamydia	Azithromycin 1000mg PO x1, or Doxycycline 100mg PO BID x 7 days
LGV (*C.trachomatis* serovar L1, L2, L3)	Doxycycline 100mg PO BID x 21 days
Uncomplicated gonorrhea	Azithromycin 1000mg PO AND Ceftriaxone 250mg IM
Primary syphilis (chancre)	Benzathine PCN, 2.4 million units IM x1
Secondary syphilis	Benzathine PCN, 2.4 million units IM x1
Early Latent syphilis (documented < 1 year)	Benzathine PCN, 2.4 million units IM x1
Late Latent syphilis (>1 year, unknown duration)	Benzathine PCN, 2.4 million units IM q week x3
Neurosyphilis	IV PCN G, consult an Infectious Diseases specialist

**This does not include treatment of antibiotic allergic patients, complicated STIs, HIV prevention or treatment, or many other STI pathogens; see* 2015 CDC Treatment Guidelines *for more details.*

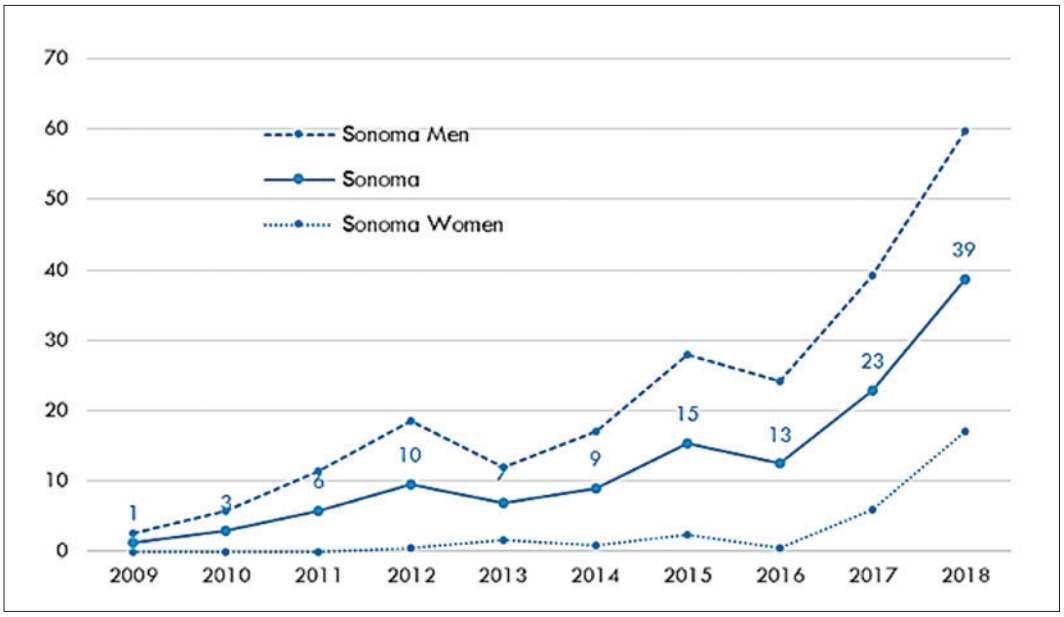

Figure 2. Rates of Early Syphilis by Gender, Sonoma County, 2009–2018.
Source: *Sonoma County Department of Health Services.*

Social networks also include communities of homeless individuals. Unfortunately, being homeless is a recent and unique STI risk factor in Sonoma County. Homelessness paired with methamphetamine or opioid use is a particularly compounding risk for STI. Regardless of risk category, the number of lifetime and recent sex partners, the rate of partner exchange, and the frequency of condomless sex are all fundamental factors that determine an individual's risk of acquiring and transmitting any STI. [8,16] Other facilitating circumstances or behaviors, such as homelessness, drug use with/for sex, online dating, and lack of access (or poor utilization of medical care) will potentiate these fundamental risk factors.

HIV

In the early part of the HIV epidemic, even after AIDS survival dramatically improved with highly active antiretroviral therapy (HAART) in 1995, HIV infections continued to be under 50,000 new cases each year in the U.S. The condom campaign did not significantly impact the HIV epidemic. But more recently, three concurrent initiatives seem to have finally lowered HIV transmission: [7] better testing of HIV-positive populations unaware of their diagnosis;[11] linking HIV-positive patients to treatment resulting in sustainably undetectable HIV serum viral loads; and identifying at-risk populations and starting tenofovir disoproxil/emtricitabine (Truvada) as pre-exposure prophylaxis (PrEP) for HIV prevention.[20] Other important initiatives such as needle exchange, HIV testing, and testing/treatment of HIV pregnant women, have been important prevention strategies in specific populations, as well.

Now HIV has a hope-filled trajectory. In the U.S., an estimated 1.1 million people are living with HIV: 68% are MSM, 9% are patients who use injection drugs, and 23% are heterosexual.[26] Since 2012, the annual rate of diagnoses of HIV infection has decreased nationally, with 38,739 new cases reported in 2017.[17,25] In urban epicenters like San Francisco, new HIV diagnoses are decreasing each year, reducing to 532 new cases in 2006, and then to an all-time low of 221 new HIV diagnoses in 2017.[3] In Sonoma County HIV has stabilized to under 40 new cases reported over the years 2014 to 2016, and under 30 reported in 2017 and 2018.

A decade ago, the CDC estimated that 25% of infected people did not know their HIV status. But now only 14% of patients are unaware.[2,22] The highest risk category unaware of their HIV status falls into the age group of 13 to 24.[22] In Sonoma County, the number of new HIV cases has declined in men, but has only leveled off among women, with five to six new HIV cases in women each year. Although the number of new HIV cases has decreased in Caucasians, new HIV cases have only leveled off for Hispanic/Latinos (under 10 new HIV cases/year from 2008-2017). We have more work to do, nationally and locally, in specific ethnic, gender, and age demographic populations.

Truvada was FDA approved daily as PrEP HIV prevention in 2012. PrEP is indicated for patients who are not in a monogamous relationship; MSM who participate in anal sex; injection drug users; women who are pregnant and have an HIV positive partner; and any patient that requests PrEP. The CDC and NIH HIV guidelines do recommend condom use, as well.

There has been much discussion about how the use of PrEP has influenced the use of condoms. An Australian study demonstrated that a rapid increase in PrEP use in gay and bisexual men was accompanied by an equally rapid decrease in consistent condom use.[23] An observational HMO study of 657 patients in San Francisco on PrEP (mostly MSM) documented a 41% decrease in condom use, with a 50% incidence of an STI within 12 months, specifically a 33% incidence of rectal STIs within 12 months, and 4 acute Hepatitis C infections (mode of transmission not elucidated). That same study did demonstrate zero HIV infections during PrEP prophylaxis.[24,25] Zero HIV infections is incredible news, but a 33% incidence of rectal STIs demonstrates a lack of condom use. There are only 6 cases of reported PrEP failure, with seroconversion to HIV, known worldwide.[27,28] Three of those cases are believed to have seroconverted to HIV due to recurrent rectal STIs, causing significant mucosal barrier breakdown. Rectal mucosal barrier breakdown with an STI is the proposed mechanism of HIV seroconversion, even with therapeutic Truvada drug levels. Condoms are very important, even if not popular. Continuing the condom discussion is crucial to providing nonjudgmental, complete care, and preventing many other STIs.

In Summary

Sexual and reproductive health is multidimensional and extends far beyond the absence of STIs and their sequelae. Important elements of sexual and reproductive health include having the knowledge,

ability, freedom, and support to create and navigate respectful and safe relationships; to make healthy and responsible choices about sexual behaviors; to be free of stigma often associated with alternative sexual orientations and expressions; and to have access to effective preventive, screening, treatment, and support services. Promoting sexual and reproductive health requires collective community action across many sectors.

In Sonoma County there is much to celebrate, including laws and ordinances against discrimination based on sex, sexual orientation, gender identity, gender expression, and medical conditions. Schools are mandated to ensure all pupils in grades seven to 12 receive comprehensive sexual education and HIV prevention education (California Healthy Youth Act: https://www.cde.ca.gov/ls/he/se/), and local community organizations that promote and support sexual health (e.g., Positive Images, LGBTQ Connection, and school-based support organizations). Nevertheless, sexual health for our population needs ongoing nurturing, and clinicians play a vital role.

Ideally, as clinicians we will embrace the importance of and presence of sex in our patients' lives, scan for and neutralize our own prejudices, and periodically take nonjudgmental sexual histories with all potentially sexually active patients (see CDPH's "A Clinician's Guide to Sexual History Taking": https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/CA-STD-Clinician-Guide-Sexual-History-Taking.pdf).

Further, we should discuss and pursue family planning options; follow recommended STI screening recommendations for sexually active individuals including periodic bundled testing in the absence of symptoms; assure treatment of identified infections (consider stocking bicillin for syphilis treatment); and talk to patients with infections about their sexual partners (gather names and contact information if possible). We need to pursue partner notifications and treatments (see CDPH guidance on Expedited Partner Therapy (EPT): https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/EPT-for-CT-GC-Patients_Essential%20Access.pdf), and appropriately notify Sonoma County Public Health Disease Control (see Sonoma County Public Health Disease Control webpage: https://sonomacounty.ca.gov/Health/Disease-Control/Disease-Reporting/ or call 707-565-4566).

In addition to mandated surveillance activities, the Public Health Disease Control team can offer patients options and assistance with partner notifications. Should your Sonoma County clinical group desire technical assistance or a presentation on the above recommendations from the Sonoma County Public Health Disease Control team, call 565-4566 to make arrangements. Working together across the healthcare spectrum to provide appropriate care to our patients and their sexual partners, we can better address both the explosion of STIs in Sonoma County and the overall sexual health of our population.

Take Home Points:

- Periodically take a nonjudgmental sexual history with all sexually active patients. Don't make assumptions.
- Promote both sexual and reproductive health.
- Every sexually active person should have at least one HIV test.

• Consider comprehensive STI testing every three to six months for patients with documented STI and continued risk behaviors.

• Bundle STI testing to include HIV, syphilis, Hepatitis A/B/C, gonorrhea/chlamydia testing.

• Include rectal/pharyngeal/urine testing for gonorrhea/chlamydia with MSM and any patients engaging in anal sex.

• Vaccinate nonimmune patients for hepatitis A and hepatitis B, especially the homeless.[29,30]

• Continue HPV vaccine in boys/girls age 9–12, and MSM to age 26.[29]

• Test every pregnant woman for HIV, syphilis, and Hepatitis B. Consider repeat testing in the 2nd and 3rd trimester in at-risk populations in Sonoma County due to the rising incidence of syphilis in pregnancy and congenital syphilis cases.

• Discuss and offer PrEP to HIV negative patients with casual or anonymous partners.

• Continue to encourage condom use every time STIs are discussed.

• Consider stocking bicillin for syphilis treatment.

• Consider Expedited Partner Therapy for chlamydia and gonorrhea.

• Discuss the importance of notifying and treating sexual partners.

Emails: GreenGM1@SutterHealth.org; karen.holbrook@sonoma-county.org

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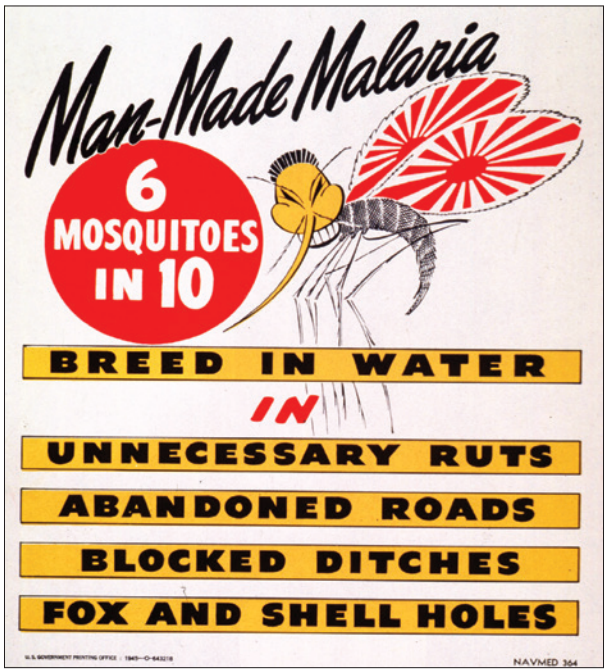
A Brief History of Malaria in the United States

Allan Bernstein, MD



Navy Department Bureau of Medicine and Surgery poster, U.S. Government Printing Office, 1945.

The Western Hemisphere, while full of mosquitoes, including the Anopheles varieties that can transmit malaria, was apparently malaria-free until the arrival of European settlers in the 1500s.

Vivax malaria was well established in most of Europe and was probably transported to the New World with the first boatload of settlers. While subject to considerable annual precipitation, New England also benefits from rapidly flowing streams that limited the breeding of Anopheles mosquitoes in the region at the time. The Southern Colonies of Virginia and the Carolinas were initially established along slow-moving coastal rivers. These swampy areas supported large swarms of disease-carrying mosquitoes, creating high mortality rates among the earliest European settlers. Northern settlements thrived, while the Southern Colonies often withered with high childhood mortality related to malaria. Since a relative resistance to malaria develops in people who survive infections during childhood, the adult Southerners gradually were able to build successful colonies and a growing population base.

A neurologist in Sebastopol, Dr. Bernstein serves as chair of Sonoma Medicine's *editorial board.*

The introduction of African slaves to the Americas brought the more deadly falciparum malaria to the continent, where it rapidly became well established. Adult Africans arrived with a moderate resistance to all forms of malaria, including falciparum, while the Europeans and the Native Americans had no resistance. Deadly outbreaks of childhood malaria spread throughout the Colonies, primarily in the summer months when the mosquito population surged. Traditional "wisdom," based on the European experience, held that malaria was a disease brought on by the "bad air" of the swamps (*mal aria,* Medieval Italian). Mosquito transmission wasn't proven until 1895 (Bignami) and 1898 (Manson and Ross). Disease control was thus based on draining swamps and other sources of stagnant water. That process was, and remains today, a major source of disease mitigation.

The Spanish recognized that quinine, originally from Peru, was an effective treatment for malaria. Their colonies in South America provided a steady supply. They managed to maintain a monopoly on it, facilitating military and political leverage for over a hundred years. Later, the Dutch developed a lucrative quinine trade in their East Indies colonies.

During the Revolutionary War, the British strategy to invade the south and then move north was undone by massive outbreaks of malaria in the British ranks, since their troops had experienced no prior exposure to the disease. The Spanish refused to sell quinine to the British, though they would sell it to the French and Americans. The final surrender of the disease-decimated British army at Yorktown occurred, appropriately, in a vast swamp, filled with mosquitoes, and a surrounding American army predominantly staffed by Southerners who were resistant to the local malaria.

In the Battle of New Orleans in the War of 1812, a British army with no resistance to malaria was once again defeated by an American army made up of Southerners resistant to the local diseases, mainly malaria. Malaria made a resurgence in New England in the mid-1800s as rivers were dammed to create power for the mills. The resulting "mill ponds" became breeding grounds for malaria-carrying mosquitoes, with significant illnesses reported in people living near the newly formed ponds. As the mills moved away

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and the ponds were drained, the malaria epidemic decreased rapidly.

The Erie Canal, constructed over the years 1818 to 1825, passed through a number of large, swampy regions in central New York. Over a thousand workers, mostly Irish immigrants, developed "summer fevers" (probably malaria), delaying canal construction for up to a year. As the swamps were drained, the illnesses abated. The westward movement across the Great Plains in the early 1800s, which included African slaves, brought malaria to the Mississippi Valley, from the Appalachians to the Rockies, with major outbreaks in Michigan, Illinois, and Missouri, thus limiting new settlements.

Malaria was a factor in the Civil War for both sides during the summer and fall periods when mosquitoes were most active. The opposing sides both used quinine to combat the disease, often mixed with whisky to mask the bitter taste. However, when the Union Army, well supplied with quinine, captured Vicksburg (1863) and cut off the Confederate supply of drugs, malaria became another adversary in the Confederates' losing battle.

Malaria spread widely during the World Wars. Troops were transported from all over the globe into crowded, often unsanitary, bases and battlefields. More troops were disabled by disease than by enemy fire during WWI. Malaria in Southern Europe and North Africa, and typhus in the northern battlefields, disabled large portions of the various armies involved. By WWII there was greater attention paid to disease prevention and sanitation, with a reduction in disability due to infection. But the global nature of the war placed more troops into malaria-infested environments. The copious use of quinine and the deployment of screened tents limited the disease's spread in the South Pacific Theater.

Large concentrations of U.S. military training facilities during the global wars were, and remain located today, in the American South. While this allowed for year-round training, it also served to expose large numbers of people to malaria for the first time. The hydroelectric dams and irrigation canals of the region provided ample sites for malaria-carrying mosquitoes. Malaria then spread to the rest of the country as the troops went home.

The "magic bullet" arrived after WWII in the form of dichlorodiphenyltrichloroethane, commonly known as DDT. This was touted as the ultimate cure for malaria, and used to coat every house, pond, livestock and piece of clothing with a chemical guaranteed to kill all mosquitoes and thus end the transmission of malaria. It was relatively effective in areas where people lived in fixed structures, but fell short where people lived largely outdoors, or moved frequently. Rachel Carson's *Silent Spring* (1962) brought to light the long-term toxic effects of DDT on wildlife and, of course, mosquitoes developed resistance to it. It is now banned in most of the world.

By now, malaria is rarely seen in the United States except as an "import." Travelers will bring it home and immigrants will arrive with it in their systems. People living in cities rarely come in contact with Anopheles mosquitoes, so even if infected, there is minimal chance of passing it on to others. Most of us live in fixed buildings, far from swamps, and use screens on our windows. The swamps of the Midwest and the South are mostly drained, and the number of infected hosts (us) is so limited, that even a swarm of Anopheles mosquitoes is unlikely to find a parasite to pass on to the next person. A small outbreak of malaria occurred in Southern California among Vietnam veterans sharing intravenous needles—no mosquitoes needed.

The worldwide incidence of malaria has barely fallen in spite of the billions of dollars spent on looking for a cure or even a prevention strategy. Insecticide-impregnated nets employed to protect sleeping children and adults from mosquito bites have helped in certain communities, although the developing world nets often end up being used for fishing during the day, losing their effectiveness at night. The parasite has developed resistance to the more common drugs, so new ones are continually being investigated. Unlike smallpox or yellow fever, there is little chance of eradicating this illness worldwide.

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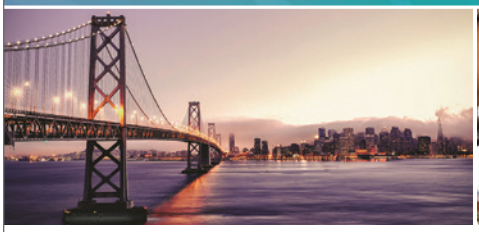

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Vaccine Debate: More Education, Less Confrontation

Brian Prystowsky, MD

Even as alarming reports are surfacing nationwide regarding new measles outbreaks, vaccine refusers in our state are attempting to circumvent SB 277, the California law passed in 2015 barring parents from citing personal or religious beliefs to avoid vaccinating their children. The law specifies that medical grounds can be the only legitimate reason for exemptions from vaccinations.

Vaccine refusers in California are exploiting the medical-grounds exemption with the assistance of a small percentage of physicians who do not subscribe to the overwhelming medical consensus regarding the safety and effectiveness of vaccinations. As I recently told the online publication for Kaiser Health News, "California Healthline," the medical-exemption route "is sort of the 'Hail Mary' of the vaccine refusers. We have pockets in our community that are just waiting for measles to rip through their schools."

Of the top 10 California grade schools with the highest percentage of students entering kindergarten claiming medical exemptions from vaccinations over 2017–2018, four alone are located in Sonoma County. According to the California Department of Public Health, those schools, along with their respective exemption percentages, are:

- Sebastopol Independent Charter (Sebastopol): 58%
- SunRidge Charter (Sebastopol): 51%
- Live Oak Charter (Petaluma): 43%

Dr. Prystowsky is a pediatrician with Sutter Medical Group of the Redwoods, Santa Rosa.

> A small portion of our populace has been victimized by misinformation about the safety of vaccines . . .

- Summerfield Waldorf School and Farm (Santa Rosa): 35%

Additional legislative help is on the way to combat the exploitation of the medical-exemption loophole. In March 2019 Dr. Richard Pan, a pediatrician and California state senator, along with assemblywoman Lorena Gonzalez, introduced Senate Bill 276 to strengthen oversight of the medical-exemption process. The legislators claim that a handful of doctors in the state are abusing the process by granting medical exemptions to anti-vaccine parents.

In a statement accompanying the introduction of the new legislation, Dr. Pan said, "Medical exemptions have more than tripled since the passage of SB 277. Some schools are reporting that more than 20 percent of their students have a medical exemption. It is clear that a small number of physicians are monetizing their exemption-granting authority and profiting from the sale of medical exemptions."

According to Dr. Pan's office, SB 276 will reshape California's process by requiring state-level public health approval of all exemptions. Exemptions would be granted solely by the California Department of Public Health (CDPH). Physicians will submit information to CDPH, including the reason for the exemption, the physician's name and license number, and a certification statement that the physician has personally examined the patient. The department will maintain a database of doctors who administer medical exemptions, and for what reason. The bill is co-sponsored by the California Medical Association, the American Academy of Pediatrics, California, and "Vaccinate California," a parent advocacy group working to improve public health by increasing vaccination rates in the state.

As of April 23, the bill passed the Senate Health Committee by a margin of 6–2 after six hours of heated testimony, and must next pass the full Senate and Assembly prior to being signed by Gov. Newsom. Once signed, the law would be enacted as of Jan. 1, 2021.

Because vaccine discussions involve public health, and in particular the health of our children, debates over this topic have traditionally tended to devolve into personal attacks. But inflamed passions on both sides need to be tamped down in favor of science, education, and a shared interest in the public benefit of vaccinations.

Refuser Objections

The World Health Organization (WHO) named "vaccine hesitancy" one of its top 10 global health threats in 2019 and has identified the five primary objections vaccine refusers bring to the debate: that the threat of disease is low; that "big medicine," including pharmaceutical companies, cannot be

trusted; that alternative treatment methods are an effective substitute for vaccines; that vaccines are largely ineffective in protecting against disease; and that vaccines pose a safety risk, especially to children. While none of these points can withstand the overwhelming reality of the available data and science, it's important that we not allow discussions to become personal in nature.

Because Americans in general have a distrust of large institutions, in this case healthcare institutions, I have joined a growing number of physicians who are choosing to humanize these discussions. While many citizens may not trust "Big Healthcare, Inc.," by overwhelming numbers they do trust their own primary care physicians. To that end, in April we started a list of Sonoma County physicians and healthcare providers who are publicly attesting to the safety and efficacy of vaccinations.

These local physicians and healthcare providers, who numbered 250+ at press time with a list that is growing rapidly, endorse the following statement:

The physicians and healthcare professionals of Sonoma County agree that vaccines are not only safe and effective, but critical to protecting individuals and our community from serious life-threatening infectious diseases. When a large majority of the population is vaccinated, the resulting herd immunity prevents the spread of disease and protects those who cannot be vaccinated: infants, children, and people with compromised immune systems. These groups are especially vulnerable to complications from vaccine-preventable diseases. The best way to protect yourself, your loved ones, and your community is to get vaccinated.

The physicians list can be found in the May 5, 2019 *Press Democrat* and here:

http://www.nbcms.org/news-events/news/vaccines-are-safe-and-effective.aspx?PostId=4864&tabid=734

The vaccine debate is an education battle that we will always win, because the science overwhelmingly supports the conclusion that vaccines are safer than vaccine-preventable diseases. Please exercise compassion when counseling misinformed parents who feel, just as we do, that they are protecting the best health interests of their children. The bottom line is that statewide in California, roughly 95 percent of our children are properly vaccinated. The parents of the remaining 5 percent are where we need to train our focus, with arguments centered upon science and data, and not on *ad hominem* attacks. A small portion of our populace has been victimized by misinformation about the safety of vaccines, and in the end it's our job as healthcare providers to help them see, and seek out, the truth.

The safety of our children, as well as the population at large, depends on our efforts being successful.

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Avoiding Illness on International Travel:
Common Sense Goes a Long Way

Michael Ellis

I've been leading international travel tours for over 40 years and have found that avoiding illness and injury while away from home is largely a matter of common sense. Be proactive, and not reactive, while traveling. Take responsibility for your health.

A recent experience is illustrative. Not long ago we were on a trip to Tanzania and a guest was taking meds that ceased yielding the desired result two weeks *before* embarking on the journey. While on our excursion she suffered severe dehydration and had to be flown out of the Serengeti to receive care. Once in a hospital setting, she had to have her electrolytes brought back into balance, or she could have died.

The lesson? If your meds are not working while you are still at home, the time to get that fixed is well before you board your flight.

Exotic Locales and Infectious Diseases

For decades we have led excursions to some of the richest and most scenic biological regions on earth, including the Amazon and the Pantanal in Brazil, and Tanzania in eastern Africa. Not once over the years has one of my guests contracted a serious infectious disease, including malaria, partly because in questionable areas we drink only bottled water, follow strict hand-washing protocols, adhere to CDC travel warnings, and urge all travelers to consult with their physicians in advance of the trip for necessary vaccines.

We emphasize that our travelers bring mosquito nets, insect repellent, and mosquito-repellent clothing to prevent malaria. Depending on the region in question, applicable vaccines may also include those covering yellow fever, measles-mumps-rubella (MMR) vaccine, diphtheria-tetanus-pertussis vaccine, varicella (chickenpox) vaccine, polio vaccine, and an annual flu shot.

Pre-Trip Planning

Visit the CDC website for travel advisories applicable to your destination. Consult with your doctors and pharmacists well in advance of your trip. Always take your meds in a carry-on bag and *not* in your checked bags. Checked bags can be lost! Also, medical alert info and your physician's contact info are a must to include in your carry-on. This aspect came into play when we were on a trip in Patagonia and a guest fell ill. Because she included her physician's contact info in her carry-on, I was able to call him for a consultation. With the exception of Turkey, which has excellent medical care, you do not want to receive medical treatment of a serious nature in much of the developing world.

Address all pre-existing conditions with your physician well in advance. Also, before visiting certain countries with increased health risks, you may have to obtain the Carte Jaune or "yellow card." It is an international certificate of vaccination issued in the U.S. by the Department of Health and Human Services. It is recognized internationally and should be kept in the holder's passport, as it is a medical passport of sorts. Discuss with your physician whether to pack an EpiPen for the emergency treatment of life-threatening allergic reactions.

On Your Flight

While I'm not a believer in air-travel remedies such as Airborne, they do work for some people. The placebo effect can be very powerful with the right patient. If possible, book an aisle seat to make it

A naturalist who has led natural-history trips for over 40 years, Mr. Ellis is founder of the Santa Rosa travel company Footloose Forays. He holds a bachelor's degree in botany and a master's in marine biology.

easier to get up, stretch your legs, and walk the aisle once an hour. And consult with your physician about wearing compression socks, as some believe they reduce the likelihood of developing leg vein clots. Keep alcohol intake to a minimum: alcohol decreases the body's production of anti-diuretic hormone, which is used by the body to reabsorb water. With less anti-diuretic hormone available, your body loses more fluid than normal through increased urination.

Arrive early at your destination, a couple of days before the trip starts if possible, in order to adjust to the new time zone. If you drink coffee in the morning while at home, drink it at the same, "new" time on the road. Time changes get harder as you age, so the sooner you adapt, the more you'll be able to enjoy your tour.

I recommend, but do not require, travel and evacuation insurance. With travel insurance, the cost of your trip will be reimbursed if some reason you can't complete your excursion. Emergency medical evacuation insurance is short-term and can be purchased for as little as a day's worth of use. While this insurance mostly covers evacuation expenses, it also may cover other emergency medical expenses.

Plan for Your Destination

Some of my excursions take guests to higher elevations and nearer the equator. You will get higher doses of solar radiation as a result, so always bring sunblock, and plan your clothing choices accordingly. Be conservative with your food choices and avoid "street food." I've had more guests fall ill from street food in Mexico than in Africa.

On our trips we always follow appropriate protocols for hand-washing. For both hydration and hand-washing, carry bottled water with you while traveling. Of the maladies we have encountered, dehydration is at the top of the list. Where appropriate, always use a mosquito net and insect repellant. Buy a first-aid kit and put it in your carry-on. You can get these at travel outlets such as REI. Be sure to separately buy a thermometer and include it, as well, as thermometers are often not included as standard equipment. Bring an extra pair or two of prescription glasses. Buy a headlamp flashlight as the readily available electricity we take for granted at home is often less reliable in the developing world.

As the leader of these trips, I always require guests' medical information in advance. I strongly suggest that for international travel, you only consider guides who have the same requirement. Keep in mind that travelers can do everything right and still get sick. At the very least, if possible pack decent pain meds such as Vicodin or Percocet. Spraining an ankle or breaking a leg is one thing while at home. On the road, the discomfort is can be magnified by the anxiety of an unfamiliar setting.

I employ only socially and ecologically responsive companies in the host countries I visit. This often results in higher prices, but those I'm willing to pay. As I lead one of the few eco-tour companies where the principal (me) goes on every trip, I am there to deal with problems, big and small. For the enjoyment of my guests I purposely pick the best times of year to visit my chosen destinations.

In return, all I ask of my guests is that they exercise common sense and prudence, before and during the trip, to avoid getting sick or injured. After all, this is meant to be educational and fun, and most of all, a rewarding adventure. As St. Augustine wrote, "the world is a book and those who do not travel read only one page."

Email: mjellis@footlooseforays.com

ALL PHOTOS BY MICHAEL ELLIS

***Previous page, top**: View from canopy tower, southern Amazon Basin.*

***Center:** Lioness in the Serengeti, Tanzania.*

***This page from top left:** Manakin in the Pantanal, Brazil. Lesser flamingos in the Ngorongoro crater, Tanzania. Cheetah brothers hunting Grant's gazelle. The Chapada in central Brazil. Plains zebras in the Serengeti, Tanzania. Hippos at the Retima Hippo Pool in the central Serengeti, Tanzania. Jaguar in the Pantanal, Brazil.*

Starting Kindergarten—Ready or Not?

Jeff Miller, MD, FAAP, and Michele Rogers, PhD

John is a 19-year-old who was born at 35 weeks gestation. John's single mother only had a high school education, and worked several minimum-wage jobs to in order to survive. John's elderly grandmother handled his early daycare, where he spent most of his time in front of the TV. At entry to kindergarten, John was found to be nearsighted and his language, cognitive, and social skills were behind by 6 to 12 months. John continued to struggle all throughout school, and just recently, dropped out entirely

Could John's physician have helped change his story?

Brain and child development research demonstrates that experiences during the first five years of life lay the groundwork for everything that comes later.[1] The great majority of human neurodevelopment occurs in these first years. This growth and the increasing organizational complexity of the brain are the biologic basis for school readiness (SR) abilities.

These abilities include:

- cognitive: memory, basic math and literacy concepts;
- physical: vision, hearing, perception, motor skills, general health;
- language and communication;
- social emotional: mental health, quality of relationships, and
- learning skills: impulse control, focus, curiosity, initiative.[2]

Neurodevelopment and resultant SR abilities are fostered by warm, responsive, and positive parenting, stimulating interactive communication with caregivers (during play and care activity) and access to educational resources like books.[1,2] Furthermore, when mothers have greater knowledge of infant and child development, they show higher levels of parenting skills,[3,4,5] their children have higher cognitive skills,[3,6] and there are fewer child behavior problems.[3] Quality preschool attendance has also been shown to increase school readiness, especially in children from traditionally underserved families.[2,7,8]

Children who are delayed in SR skills at school entrance tend to stay behind throughout their school careers,[7,9] even when controlled for ability and behavior.[7] Children with low SR abilities ultimately have an increased likelihood of underemployment and poverty in adult life, which results in huge societal costs.[10,11]

Poverty is the single most significant underlying factor negatively affecting SR.[12] Children who live in poverty are more likely to have adverse experiences (such as harsh parenting, maternal depression, single parenting, and food and shelter insecurity), and are also more likely to be born premature, suffer chronic illness and malnutrition—all of which can inhibit normal development.[2,13] For example, children from families with a 10th percentile income scored 1.1 standard deviations lower at kindergarten entrance in math and reading, and 0.5–0.6 SDs lower on measures such as self-control and attention, compared to those with 90th percentile family incomes.[14]

There is also an ethnic/racial SR gap, with multiple studies indicating significantly lower math and reading school readiness in black and Latino children.[14,15,16] Poor minority families have been shown to understand the worth of SR, but often lack access to positive influences such as an equal education,

Dr. Miller, a retired pediatrician, serves as a commissioner of First 5 Sonoma County. Michele Rogers, PhD, is executive director and co-founder of the Early Learning Institute and a commissioner of First 5 Sonoma County.

economic opportunities, and quality child care/preschool.[17] The income and ethnic/racial gaps have narrowed somewhat in recent years despite increasing income inequality, which may be an early indication that investments in early child and family education are starting to pay off.[18]

The Sonoma County 2017-18 SR Study (using the Kindergarten Student Entrance Profile[19]) of a representative sample of 1,647 kindergartners showed only 42 percent were "ready to go" (the highest level of SR). Forty-four percent of students from English-speaking households, and 29 percent of students from Spanish-speaking families, scored at this level. The study showed that the SR of students from Spanish-speaking families had actually improved over 25 percent in the last two years. It also showed that attending an early learning program, or a parent reading to their child more than five days a week, each doubled the likelihood of entering school "ready to go."[20]

Physicians have a unique opportunity to facilitate SR abilities because of their early and ongoing relationship with the families of young children. The traditional physician SR role has been the prevention (when possible), timely diagnosis, and thoughtful treatment, of medical conditions known to decrease SR abilities. These conditions include vision and hearing dysfunction, prematurity (small but significant effects as late as 35–38 weeks[21]), chronic otitis, asthma, allergies, sleep disorders, dental caries, malnutrition, anemia, toxic exposures, and maternal depression.[2]

SR can be facilitated at well-child visits with anticipatory guidance to encourage families to:

- learn about child development;
- practice positive parenting (and take parenting classes);
- use interactive communication and play;
- read to their children (e.g. Reach Out and Read), and
- seek quality early care/preschool.

The First 5 California (first5california.com) and American Academy of Pediatrics (healthychildren.org) websites provide developmental and parenting information for parents. Also Zero to Three (zerotothree.org) is a tremendous resource for early brain and child development parent guides. The Child Parent Institute (calparents.org) has been providing quality local parental education for 40 years. Parents can use brochures like "Choosing Child Care: What's Best for Your Family," by the AAP, and contact our child care resource and referral agency (sonoma4cs.org) to help find quality early care and preschool.

Physicians usually perform basic developmental surveillance at each well-child visit, including a general discussion of language and gross and fine motor development with parents. However, it has been shown that this informal screening often fails to identify children with significant or emerging developmental problems. The American Academy of Pediatrics recommends using a formal developmental screening tool at nine-, 18-, and 30-month visits.[22] The Ages and Stages Questionnaires (ASQ3 and ASQ Social Emotional)[23] for children 0–5, and the Modified Checklist for Autism in Toddlers (M-CHAT-R/F)[24] at 16–30 months, are the most common tools used locally. With thought, and especially technology, these tools can successfully be incorporated into a busy practice. Alternatively, inquiring about screenings that may have happened at child care, community play groups, or other organized activities, allows physicians to incorporate these findings into the medical record and support follow-through on any recommendations that were made.

Children at high risk of developmental delay, or those shown to have one, benefit from prompt referrals. Just like our thought process for referral to Child Protective Services for possible child abuse, referral for developmental delay is best done early, on suspicion. Even a strong family concern that there is "something wrong" is an excellent reason to refer, or to support parents in making their own self-referral. A watch-and-wait attitude can lead to a missed opportunity for effective early treatment, and can also inadvertently support parental resistance to recommended services.

Watch Me Grow (WMG—a program of the Sonoma County Early Learning Institute partially funded by First 5 Sonoma) is the local hub for evaluation and treatment of developmental and social emotional concerns in children 0–5 years old, not yet in kindergarten. If you are not able to do a formal screen, WMG can provide free, in-home screenings and ongoing monitoring. Children already having a positive screen can be referred to WMG for connection to appropriate services and support. Contact information and referral forms are available at the WMG website (earlylearninginstitute.com/services/wmg/).

Conclusion

Now let's return to John, our original example. Since he was born at 35 weeks gestation and his mother was single, they were likely eligible for one of several home-visiting development promotion programs here in Sonoma County. Given their low-income status, John was eligible for a state-preschool slot, where his vision problem would have been addressed early. The free community resource navigators at the Early Learning Institute could have provided ongoing support to John and his family as his needs were emerging and changing.

While there are no "magic bullets," with the interventions above, John would have been much more likely to start kindergarten "ready to go."

Emails: jmiller@sonic.net; Micheler@earlylearninginstitute.com

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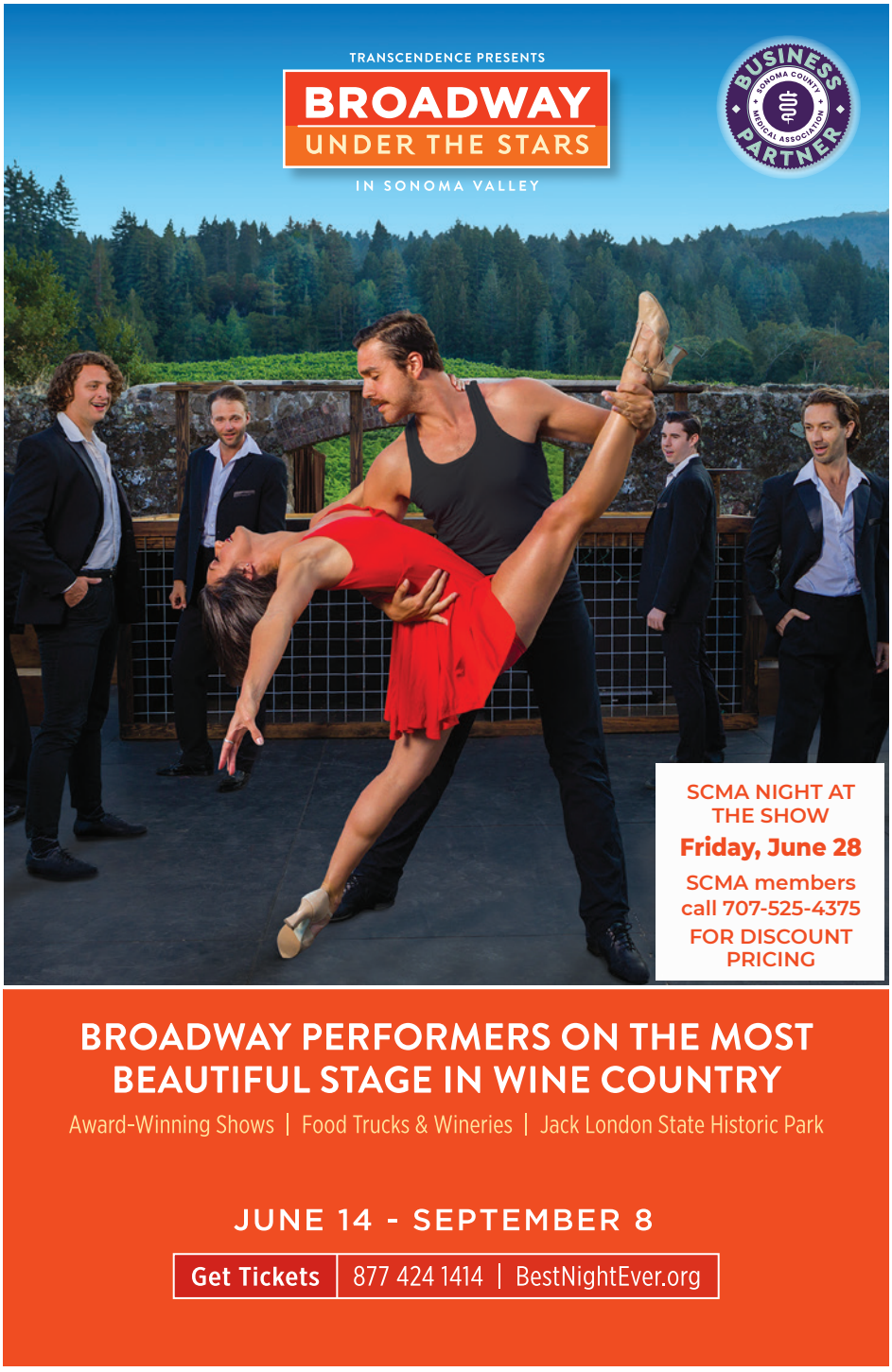
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The Wood Artistry OF DR. DONALD JEREB

After retiring in 2015 from 26 years in anesthesiology at Kaiser Permanente Santa Rosa, Dr. Donald Jereb was able to pursue his passion for wood artistry, which began in his teen years.

His pieces are regularly featured at the Sonoma County Woodworkers Association's "Artistry in Wood" show, held at the Museum of Sonoma County. This annual event is a juried exhibition of fine woodworking whose level of mastery has gained a national reputation. Dr. Jereb currently serves as chairman of the exhibition, which will celebrate its thirty-first anniversary this year.

In addition to creating furniture for his home, Dr. Jereb designs and builds two or three pieces per year for clients who learn of his work by word of mouth. Due to the fine, detailed nature of his work, each piece can take up to six months from concept to final execution.

"While I was still practicing, woodworking served as an escape from the rigors of clinical medicine and hospital administrative duties," Dr. Jereb told *Sonoma Medicine*. "Now that I'm retired, it's quite nice to be able to do it on a leisurely, full-time basis," he smiles.

Email: donjereb@gmail.com

Dr. Jereb is a retired anesthesiologist in Santa Rosa.

Dr. Jereb's comfortable interpretation of Gerrit Rietveld's iconic "Red and Blue Chair."

FURNITURE PHOTOS BY DONALD JEREB. *(Shown on page 2: Claro walnut entry hall table.)*

Clockwise from bottom left: *Wall cabinet for keepsakes (cherry, old growth redwood, ebony, American holly, Alaskan yellow cedar). Cherry sheet music cabinet. Mobius tangle (hanging kinetic sculpture, 7′ x 4′ (ash, cherry, walnut, red oak). Arched hall table in madrone and walnut. Coffee table in madrone and walnut.* ***Center inset:*** *Dr. Jereb in his shop.* (PHOTO BY TIM BURKHARD)

IHM INSTITUTE FOR HEALTH MANAGEMENT

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From left to right: Barbara Kangas, NP; Michael Yang, MD, and John Hau, MD

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Welcome NEW SCMA MEMBERS!

Michael Hernandez, MD, Anesthesiology, UC San Francisco 1972

Courtney King, MD, Family Medicine*, Med Coll Georgia 2010

Ariel Lopez-Chavez, MD, Medical Oncology*, Univ Queretaro 2001

Partnership HealthPlan

Mark Netherda, MD, Family Medicine*, George Washington Univ 1988

Northern California Medical Associates (NCMA)

Erin MacDonald, Obstetrics & Gynecology, St. George's Univ 2013

Santa Rosa Health Center – Dutton Campus (SRHC)

Carla Longchamp, MD, Family Medicine*, UC San Francisco 1991

Sutter Medical Group of the Redwoods (SMGR)

Jill Rushton-Miller, MD, Family Medicine*, Marshall Univ 2008

St. Joseph Health Medical Group (SJHMG)

Steven Smith, MD, Orthopaedic Surgery*, Washington Univ 1980

The Permanente Medical Group (TPMG)

Salman Haroon, DO, Family Medicine*, Lake Erie Coll Osteo Med

Susan Marantz, MD, Pulmonary Disease, Univ Manitoba 1983

Emily Nelson, MD, Pathology*, Johns Hopkins Univ 2016

Anne Spini, DO, Psychiatry, Western Univ 2014

Kim Tran, MD, Pediatrics, New York Med Coll 2014

Welcome NEW MLCMS MEMBERS!

James O'Dorisio, MD, Thoracic Surgery, Univ Colorado 1982

Adventist Health Ukiah Valley

Noemi "Mimi" Doohan, MD, PhD, Family Medicine, Stanford Univ 2003

* Board certified

CMA Legislative Advocacy Day 2019

Physician advocacy in action headed for the capitol building.

Patricia May, MD

Drs. May and Ranadive with Assemblymember Jim Wood and Dr. John Nelson (Humboldt-Del Norte County Medical Society) .

Governor Gavin Newsom with CMA CEO, Dustin Corcoran.

On Wednesday, April 24, Dr. Rajesh Ranadive and I left Santa Rosa quite early and arrived in Sacramento before 8 a.m. At the convention center, CMA had breakfast and informational booths to keep us busy until activities commenced. At one booth, we became certified by the American College of Surgeons Committee on Trauma for the "Stop the Bleed" program to help raise awareness of educational community aids for bleeding injuries. This is similar to AED application in the community with the distinction that it targets teaching bleeding-control basics to the lay public.

More than 600 physicians, residents, and medical students, all wearing white coats, packed into the convention center from all over the state to attend the 45th annual California Medical Association Legislative Advocacy Day. This year set a new record for attendance! How exciting to connect with doctors from all across California who converged on the state capital to speak with legislators about critical healthcare issues.

This year's concerns included tackling the dangers of companies targeting low-income communities with incentive coupons for sugar-sweetened beverages (we supported Assembly Bill 764); and, most notably, the Child Safety and Disease Prevention Act (Senate Bill 276), authored by California State Senator Dr. Richard Pan, which seeks to enforce standards for vaccination medical exemptions. SB 276 is needed to prevent fraudulent medical exemptions for childhood vaccinations, and to help improve community vaccination rates (so we don't have the return of diseases like measles!). Of note, the Senate was scheduled to discuss this bill in committee that very day. Several physicians were selected to attend that meeting and provide testimony. This extremely important Senate committee session was attended, and the issue hotly debated, by various "anti-vaxxer" groups, as well.

Other topics we addressed included opposition to Assembly Bill 290 (Jim Wood), which restricts dialysis patients from receiving community grants to assist with their medical insurance costs/needs. We also urged the legislature to adopt a three-year amendment regarding Proposition 56 revenue, to support access for Medi-Cal beneficiaries across the state.

We braved long security lines in order to meet with our legislators in the capitol building. We had time to tour the halls before our first meeting with Assemblymember Marc Levine. He was very welcoming and seemed enthusiastic to hear from us. He asked forthright questions about vaccinations and offered his support of SB 276. I was impressed by the articulations of the UCSF students within our group from Sonoma and Marin.

Next we heard Governor Gavin Newsom give an outstanding talk regarding his commitment to improving healthcare and tackling the homeless problem.

It's shocking to hear that California has the largest homeless population in America: about 24 percent of all homeless in the United States are located in California. I was impressed by his honest desire to work "across the aisle" to provide for the needs of our state. As physicians, we often see firsthand the relationship of medical problems to homelessness.

We then returned to the capitol building to meet with Assemblymember Jim Wood. He was gracious and received our contingent of four from Sonoma and Mendocino/Lake counties. We had a very frank and forthright discussion relating our concerns about Assembly Bill 290's impact on dialysis patients and stated our opposition to the bill. He listened and responded; our discussion was robust. We were next scheduled to meet with State Senator Mike McGuire. However, he was attending the committee meeting discussions on SB 276, so we met with his staffer. (Notably, this bill passed through the Senate committee that day—thank you for your support, Senator McGuire!) Again, his staffer was welcoming and informative, and we also spoke of other pressing health crises such as the vaping epidemic.

All in all, it was an insightful and productive day. I was impressed with how approachable and welcoming our legislators were to the hundreds of white coats descending on their workspace. They expressed gratitude for our presence and stressed that they always want to hear from their constituents in order to make these connections. I appreciate CMA organizing this wonderful opportunity for California physicians to come together and voice their opinions on important healthcare issues.

OPEN CLINICAL TRIALS IN SONOMA COUNTY

Sonoma Medicine lists open clinical trials in Sonoma County to increase awareness of local medical research and to benefit physicians who may wish to refer patients. This list includes research groups that both responded to our request for information and are conducting open trials. The clinical trials at other research groups are only open to their own patients.

Each listing includes the group's name and address, along with the phone number and email address of the appropriate contact person. As the list is subject to change, contact the individual research groups for the latest information.

If you know of other local open trials, contact SCMA at 707-525-4375 so the information can be listed in the next issue. This section is provided as a free service by *Sonoma Medicine*, and we rely upon voluntary input from the medical community in order to provide it. ■

NORTH BAY EYE ASSOCIATES

104 Lynch Creek Way #12, Petaluma
Contact: Angela Reynolds
707-769-2240
research@northbayeye.com

Glaucoma

iDose-Intraocular Travaprost implants (MIGS) for either Phakic or Pseudo pt's

- Criteria: OHT (on 0-3 meds) or OAG (PEX or PIG OK) with VF or nerve abnormality, Phakic or Pseudo. No cataract sx needed within 3 years. IOP (off Meds) ≥21 and ≤36, C/D. ≤0.8, VA 20/80 or better. Pachy >440 and <620. SLT ok.

EP2 receptor agonist with non-prostaglandin structure

- Criteria: OHT or OAG (PEX or PIG OK), IOP (off Meds) ≥22 and ≤34, less than -12db VF, VA 20/80 or better. Pachy >480 and <600. No SLT's, MIGS, Lasik. No steroids.

Low/non-responders to Latanoprost

- EP2 receptor agonist with non-prostaglandin structure.
- Criteria: OHT or OAG, run-in on Latanoprost with a less than 25% reduction in IOP, less than -12db VF, VA 20/80 or better. Pachy >480 and <600. No SLT's, MIGS, Lasik. No steroids.

SLT or sustained-release, P.F., biodegradable implant for non-compliant pt's

- Criteria: OHT or POAG (secondary Glaucoma ok- PEX or PIG). Not compliant with drops or unable to get drops in. Suitable candidate for SLT. IOP ≥22 and ≤34 off meds at washout. Pachy ≥480 and ≤620.

Nitric Oxide (NO)-donating bimatoprost prostaglandin analog

- Criteria: OHT or OAG (No PEX or PIG), IOP (off Meds) ≥26 and ≤36, C/D. ≤0.8, VA 20/100 or better. Pachy >480 and <620. SLT's ok. No MIGS, ALT or LPI. Inhaled steroids ok. Must be >80 years old.

Cataract surgery

- New Post-op drop. Free drops provided for surgery.
- Sched. for Cataract Sx. BCVA 20/200 in fellow eye, No OAG drops, must washout of antihistamines, NSAID's and steroids prior to surgery.

Dry eye

- A new eyedrop for dry eye.
- Criteria: Dx of moderate to severe dry eye, blurry vision caused by dry eye, no Omega 3 or 6 or herbal supplements, no contact lens wear during the study.

Blepharitis

- New treatment for blepharitis.
- Criteria: Subjects ≥1 year, Active blepharitis (eyelid redness, swelling, debris, irritation) IOP >8 and ≤22 in either eye, no mod to sev dry eye, preferably no eye lid medications or steroid use w/in 14 days.

Adenoviral conjunctivitis

- Only potential treatment for viral conjunctivitis.
- Criteria: Subjects of any age. Suspect adenoviral conjunctivitis w/watery discharge and injection. Signs/symptoms ≤ 4 days. No antivirals or antibiotics w/in ≤ 7 days; topical NSAIDs w/in ≤ 1 day; Top/systemic steroids w/in ≤14 days.

NORTH BAY NEUROSCIENCE INSTITUTE

7064 Corline Court, Suite A, Sebastopol
Contact: Lauren Weber
707-827-3593, Fax 707-861-9465
lauren.weber@northbayneuro.org

Novartis Generation 1 Study, CAP015A2201J

- This randomized, double-blind, placebo-controlled study evaluates the efficacy of two investigational drugs, CAD106 and CNP520, in comparison to respective placebo in participants at high risk of developing dementia based upon their age and genetic status. Cognitively unimpaired individuals age 60 to 75 years, inclusive, with APOE4 homozygote (HM) genotype are selected, as they represent a population at particularly high risk of progression to dementia due to Alzheimer's disease. Treatment will occur for at least 60 months, and up to 96. Approximately 1,340 participants will be randomized across at least 80 study sites across the worlds.

Novartis Generation 2 Study, CNP520A2202J

- A randomized, double-blind, placebo-controlled study to evaluate the efficacy and safety of CNP520, an investigational drug, in comparison to placebo in participants at risk for the onset of clinical symptoms of Alzheimer's disease. The study analyzes the effects of CNP520 on cognition, global clinical status, and underlying AD pathology. It recruits cognitively unimpaired participants aged 60 to 75 years, with at least one APOE4 allele, and if heterozygous for this gene, with evidence of elevated levels of amyloid in the brain. The study will consist of approximately 2,000 participants who will receive treatment for at least 60 months, and for a maximum of 84 months.

Upcoming: Roche Graduate Study, WN29922

- This phase III multicenter, double-blind, placebo-controlled study evaluates the efficacy and safety of the investigational drug gantenerumab compared with placebo in patients with early (prodromal to mild) Alzheimer's disease. The study plans to enroll approximately 760 participants worldwide. Eligible patients must be between ages 50-90 years old inclusive and must show evidence of beta amyloid pathology. The duration of the study is 104 weeks of treatment, plus follow up visits at 14 and 50 weeks after the final dose of study drug.

ST. JOSEPH HERITAGE HEALTH

3555 Round Barn Circle, Santa Rosa
Contact: Kim Young: 707-521-3814
kimberly.young@stjoe.org

Acute leukemia

- A novel immune modifier with pembro lizumab after hypomethylating chemotherapy.

Bladder cancer

- Chemotherapy versus combination checkpoint inhibitor therapy in metastatic bladder cancer.
- Durvalumab in locally-advanced and metastatic bladder cancer.
- Avelumab and an interleukin-12/antibody conjugate in recurrent/metastatic bladder cancer.

Breast cancer

- Adjuvant aspirin versus placebo after chemo in node positive or high risk node negative patients.
- A breast cancer vaccine after adjuvant chemotherapy in high-risk, triple negative breast cancer.
- BriaVax vaccine with ipilumumab or pembrolizumab for patients with metastatic breast cancer.
- Fulvestrant with or without venetoclax in metastatic disease after progression on a CDK4/6 inhibitor.
- Capecitabine with or without an oral taxane in ER+/HER2- metastatic breast cancer.
- Post-operative study of genetic risk factors in lymphedema (UCSF).
- A weight loss intervention in overweight women with stage 2 or 3 breast cancer.

Colon cancer

- A trial of a novel drug to prevent oxaliplatin-induced neuropathy in patients with metastatic disease.
- Fruquintinib as third line treatment for metastatic colorectal cancer.

Endometrial cancer

- Sodium cridanimod and progestins in metastatic or recurrent endometrial cancer.

Head and neck cancer

- Pre-operative neoadjuvant pembrolizumab in resectable head and neck cancer.
- Chemo/radiation with or without pembrolizumab for locally advanced head and neck cancer.

Kidney cancer

- Cabozantinib with or without a glutaminase inhibitor in relapsed renal cell carcinoma.

Lung cancer

- Pre-operative chemotherapy with or without pembrolizumab for resectable stage IIB/IIIA disease.
- Doublet chemotherapy/radiotherapy and pembrolizumab for unresectable stage 3 lung cancer.
- Maintenance immunotherapy in limited stage small cell lung cancer.
- A Notch receptor inhibitor (rovalpituzumab) maintenance therapy in extensive small cell lung cancer.
- Pembrolizumab with or without interleukin-10 in first line metastatic disease with high PDL1 expression.
- Osimertinib vs. placebo as maintenance after chemoradiation for EGFR-mutated stage 3 disease.
- Osimertinib with or without a CDK4/6 inhibitor in metastatic lung cancer containing an EGFR mutation.
- Platinum/pemetrexed with or without pembrolizumab in EGFR-mutated, TKI-resistant, metastatic dz.

Lymphoma

- A novel PI3K inhibitor in patients with relapsed follicular, marginal zone or mantle cell lymphoma.
- Tomivosertib (a MNK1/MNK2 inhibitor) for relapsed diffuse large cell lymphoma.

Myelodysplasia

- Roxadustat for patients with transfusion-requiring low grade myelodysplasia.

Prostate cancer

- Rucaparib in patients with HRD-positive metastatic castration-resistant prostate cancer.

Solid tumors

- Tomivosertib (a MNK1/MNK2 inhibitor) plus a checkpoint inhibitor for patients who relapse after an initial response, or are refractory to checkpoint inhibitors as single agents.

Stomach cancer

- Maintenance therapy with a PARP inhibitor after chemotherapy for unresectable/metastatic disease.

SUMMIT PAIN ALLIANCE

392 Tesconi Ct., Santa Rosa
Contact: Leny Engman
707-623-9803, Ext 118
leny.engman@summitpainalliance.com

Lower back pain and/or leg pain

- Hi-Fi Study. Comparing Ultra-High versus Traditional Pulse Widths using ALGOVITA® SCS Spinal Cord Stimulator in the treatment of Persisting or Recurrent Back and/or Leg Pain Following Spinal Surgery.
- Recharge Study: A Multi-Center, Prospective, Randomized, Double-Blind Clinical Trial of Battery Recharging Optimization with the Senza® Spinal Cord Stimulator.

Upper back and/or trunk pain

- Tap-10 Study. Efficacy of spinal cord stimulator to treat patients with upper back axial and/or radicular thoracic pain.

SYNEXUS RESEARCH

4720 Hoen Ave., Santa Rosa
Contact: Vicki Lynch
707-542-1469
victoria.lynch@synexus-us.com

Psoriasis

- Phase 3 study for adults with moderate to severe plaque psoriasis, diagnosed for at least 6 months. BMS-986165 compared to placebo and apremilast.

Statin intolerance

- Effects of bempedoic acid in the occurrence of major cardiovascular events in patient with, or at high risk for, cardiovascular disease, who are statin intolerant.

Atopic dermatitis

- Pediatric to adults with atopic dermatitis with a BSA of 3 to 20%.

Introducing SCMA's NEWEST Business Partners

SCMA's **BUSINESS PARTNER PROGRAM** adds a valuable benefit for SCMA members. The program is dedicated to offering products and services designed to support the business and personal needs of practicing physicians. Physicians benefit from discounts and referrals to quality services, and partners benefit from ongoing visibility with the medical community. **Exclusive, Endorsed** and **Partner** levels are available to qualified companies.

The **SUPPORTING PARTNER PROGRAM** offers local businesses an opportunity to affiliate with SCMA. Our supporting partners are recognized as advocates of the medical profession and the contributions made by physicians to the well-being of our community.

We welcome the new partners shown below with a full description of services. **Complete listing details are available for all SCMA partner organizations at www.scma.org.**

David Berry, Of Counsel

LEGAL SERVICES

David Berry / Welty, Weaver & Currie, P.C. I am an experienced local lawyer dedicated to helping people navigate the legal process, whether it is negotiating provider or other contracts, assisting clients buy/sell practices, negotiating leases, or resolving a variety of business and personal disputes. My firm provides a broad range of services that include estate planning; a significant part of my practice is representing building owners with construction defects and other problems. I am committed to helping the medical community, with deeply held gratitude for the local medical providers who saved my wife's life.

BENEFIT: A free initial consultation for SCMA members. If retaining my firm or me makes sense, we will discuss how to do so. If a lawyer outside of my firm is a better fit, I will make the referral. My goal is for physicians to leave the consultation feeling that they received excellent support and service. Contact me at 707-433-4842 or david@weltyweaver.com.

BROADWAY UNDER THE STARS

COMMUNITY ARTS AND HUMANITIES

Broadway Under the Stars is an annual series of award-winning experiences featuring accomplished Broadway and Hollywood performers in a spectacular outdoor setting. Located in the picturesque winery ruins of Jack London State Historic Park, each evening begins with pre-show picnicking and wine tasting and concludes with musical performances known for their dazzling energy. SCMA is partnering with **Transcendence Theatre Company** to make a difference in the health and well-being of our community through the arts. **www.bestnightever.org.**

BENEFIT: SCMA members receive a $20 discount on tickets and a reserved group picnic area for the June 28 performance of *A Chorus Line,* and a $7 discount on tickets for all 2019 *Broadway Under the Stars* performances.

SCMA physicians who volunteer for On-Call designation at individual performances will receive complimentary tickets, parking and dinner for themselves and a guest. Call SCMA at 707-525-4375 before May 28 to reserve your tickets for June 28 and for details about Physician On-Call benefits.

Current SCMA Partners

EXCLUSIVE BUSINESS PARTNER

HOMEBOUND

HOME REBUILDING SERVICES

Homebound is a full-service homebuilder, with an experienced team dedicated to helping property owners rebuild. The team handles all aspects of the rebuilding process including navigating insurance, lot preparation, architecture, design, construction, and warranty. Homebound's dedicated project concierge is there to guide you through the process, saving you time and helping you get home sooner. The Homebound Team has built thousands of homes collectively in California, and is working with dozens of clients in Sonoma and Napa counties.

BENEFIT: Exclusively for SCMA members, Homebound offers Informational Events and Curated Dinners; Initial Home Recovery Consultation (1-hour +/- meeting to discuss insurance, design, construction, and concierge services to make your rebuilding an enjoyable experience from beginning to move-in); and Move-In Service.

CONTACT US at **rebuild@homebound.com** or call our Homeowner Support team at **707-244-1011**. Please indicate you are an SCMA member.

ENDORSED BUSINESS PARTNERS

BANKING SERVICES

Since 1890, **Exchange Bank** has been serving the local community through trusted banking, financial services and charitable giving. Exchange Bank differs from national and regional banks by focusing 100% of its charitable giving on the community it serves. In 2017, Exchange Bank and its employees contributed over $665,000 to the community. 50.44% of the Bank's cash dividends go to the Doyle Trust, which funds the Doyle Scholarship at Santa Rosa Junior College. Since 1948, the Doyle Scholarship Fund has provided $83 million to over 127,000 students.

BENEFIT: Exchange Bank has designed special checking benefits and discounted residential and auto loans exclusively for SCMA members. Our staff is available to review these programs and benefits with you—contact our Customer Care Center at **707-524-3000** or visit a local branch. Please indicate you are an SCMA member when you call; have your membership ID number available. **www.exchangebank.com.**

In addition, Exchange Bank has developed five Community Rebuild Loan Programs that offer flexible lending options to those who experienced a direct property loss during the North Bay fires. Our local, experienced lending consultants are available to discuss which program works best for your needs. Contact us at ***communityrebuild@exchangebank.com*** *or call Kevin Smart, VP, Residential Mortgage Manager at* ***707-541-1252.***

MEDICAL TECHNOLOGY

Medtronic plc, headquartered in Dublin, Ireland, is among the world's largest medical technology, services, and solutions companies—alleviating pain, restoring health, and extending life for millions of people around the world. Medtronic employs more than 86,000 people worldwide, serving physicians, hospitals, and patients in more than 150 countries. The company is focused on collaborating with stakeholders around the world to take healthcare Further, Together. **www.medtronic.com.**

BENEFIT: Medtronic Santa Rosa partners with SCMA to provide fire recovery support for Sonoma County physicians and the local medical community.

BUSINESS PARTNERS

INSURANCE SERVICES

The Cooperative of American Physicians, Inc. is pleased to support Sonoma County physicians with superior medical malpractice coverage and valuable services to help you prosper and maintain your independence. Our comprehensive risk management programs help ensure your patients are safe and satisfied, while our value-added practice management benefits provide you with the administrative support you need to focus on what's most important—patient care. **CONTACT:** For more information, please visit **www.CAPphysicians.com** or call **800-356-5672**.

REAL ESTATE SERVICES

Sheela Hodes & Tammra Borrall/Compass: Business partners since 2007, we have consistently ranked in the top 1% of realtors in the county. Our priority remains quality over quantity; we have built a team of professionals who provide personalized service focused on individual clients. Over the past 11 years we have served the medical community in Sonoma County, helping more than 50 local physician families buy and sell property—and build connections in the community.

BENEFIT: SCMA buyers package: Professional services including home design consultation and comprehensive 1-year home warranty (up to $1,000 value). SCMA sellers package: Professional services to prepare home for sale, including staging, landscaping and trade consultations/services (up to $1,500 value). Contact us at **707-547-3838** or **Team@SonomaWineCountryHomes.com**.

REAL ESTATE SERVICES

Sudha Schlesinger/Compass: Since moving to Sonoma County with my physician husband in 2007, I have been actively representing physician families in the local housing market. My savvy and experienced team at Compass repeatedly exceeds expectations with customized marketing and purchase strategies; efficient execution; tough negotiating skills; and state-of-the-art marketing tools. Sellers receive consultations for home/landscape staging and buyers enjoy tours of housing, inventory and analysis of neighborhood, amenities and schools available.

BENEFIT: SCMA buyers receive an exclusive $1,000 voucher toward closing fees. SCMA sellers also receive a free Pest Inspection, $1,000 toward staging costs, and if selling lot only—a complimentary estimate of value. Please let me know how we can help you in this challenging post-firestorm market. **707-889-7778** or **sudha@sschlesinger.com. www.winecountryluxuryhomes.com.**

SUPPORTING PARTNERS

FINANCIAL SERVICES

Edward Jones
MAKING SENSE OF INVESTING
Russell Van Sistine, Financial Advisor

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SONOMA COUNTY MEDICAL ASSOCIATION

MENDOCINO-LAKE COUNTY MEDICAL SOCIETY

Membership Has Its Benefits

A Bounty of Local Opportunities!

Advocacy

Be a voice for the profession of medicine. Via SCMA and MLCMS, be a District X House of Delegates representative. Attend the annual Legislative Advocacy Day in Sacramento to lobby your legislative leaders as a champion for medicine and your patients. MLCMS and SCMA representatives go on personal visits with Assembly and Senate members to discuss issues affecting healthcare and the practice of medicine. Don't worry, we provide training for this role!

Women in Medicine

Join this group to have fun and network with other women serving the medical community here in Sonoma County. We strive to meet about four times per year, and locations vary depending on our host. Open to all women member physicians and their staff including nurse practitioners, medical office managers, administrative staff, and hospital personnel, etc.

MOMs 2.0 (Medical Office Managers and Professionals)

Running a medical office is challenging! Medical office professionals are invited to monthly lunch roundtable discussions to share best practices. Sometimes we invite a guest speaker to teach the newest processes, and in lieu of speakers, we allow space for sharing.

Community Volunteer Opportunities

There are many terrific events here in Northern California. We are asked to provide physician volunteers throughout the year. Attend great events while serving the community with expertise only you can provide!

Physician Wellness

This issue is very personal and important to SCMA and MLCMS. In addition to confidential physician wellness services offered by the California Medical Association, the local chapters have a physician wellness committee that offers eight-week confidential small group sessions for stress management.

Retired Physicians Forum

For all retired members of the medical societies, stay connected with colleagues and happenings in the medical community by attending the Retired Physicians Forum.

Physician Investment Group

Have you wanted to learn how to truly understand the whole arena of investing? How to pick stocks, read "the market" and understand how to grow your investments/ retirement accounts? Join us for monthly investment dinners.

Integrative Medicine Physicians Forum

This group of integrative medicine practitioners meets regularly to connect on topics relevant to their platform of service.

Young Physicians Network

Calling all young physicians! Want to meet other local physicians who have been practicing in Sonoma County less than 10 years? Please join us for games, food trucks, beer, tours, networking and more. You are the future. Let's build the future of Sonoma County medicine together!

Discover Sonoma County

Join SCMA for various activities in and around Sonoma County. Some active, some just for fun to tour a new business. Learn more about the community you serve with your colleagues outside of the medical office. There is a world out there! Let's discover it together!

Solo/Small Practice Forum

The Solo and Small Group Practice Forum represents the special concerns of physicians who practice alone or in small, professional medical corporations or partnerships with up to four shareholders, partners, and/or physician employees. We invite you to join us and meet other like-minded physicians; create a solo/small networking/referral group for your practice; and learn how SCMA, MLCMS and CMA can support you in your practice.

Leadership Development

Leadership experience desired but not required. SCMA/MLCMS Executive Director, Wendy Young, is an experienced nonprofit coach/leader and can guide you through the leadership process or propel you into future leadership opportunities. Regardless of where your leadership journey is at the moment, your talents are welcome. Must be a member in good standing and have a desire to serve your medical community. You should be able to work well with others and have a "can-do" attitude.

Editorial Board

Do you like to write or encourage collegial writings? Do you like the magazine you are reading? Then join the Editorial Board and help us continue to create *Sonoma Medicine* for future generations.

Awards/Recognition

Annual awards gala honoring local physicians for their service to the community and/or the practice of medicine. Nominate your colleagues for recognition at the gala!

CME Presentations

Get your CME credits while networking with local physicians in various locations in Sonoma, Mendocino and Lake counties. Have fun while learning!

Member Networking Events

Annual physician appreciation event. Join us and see what all the fuss is about!

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Friday, July 26

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Registration 7:30 am • Program 8-11:30 am

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Chief Wellness Officer, Stanford Medicine
Jeannie and Stewart Ritchie Professor of Medicine
Associate Dean, Stanford School of Medicine

Also Featuring:

Kathleen Creason
CEO, Well Physician California
California Medical Association

Peter Valenzuela, MD, MBA
Chief Medical Officer
Sutter Medical Group of the Redwoods

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Physicians' BULLETIN BOARD

IN THE NEWS

- **Eye Care Institute** welcomes **Lillian Yang, MD**, to ECI's Santa Rosa practice. As a board certified ophthalmologist, Dr. Yang manages a wide spectrum of eye diseases and surgeries, including glaucoma, cataract surgery and minor oculoplastic procedures. A Kansas native, Dr. Yang obtained her undergraduate degree in biology at Wichita State University and completed her ophthalmology residency at the University of Kansas School of Medicine.

- **Sonoma Valley Hospital** now offers **Lipogems** treatment. Sonoma Valley Hospital is among the first hospitals in the North Bay area to offer Lipogems, an advanced adipose tissue technology that supports healing from an orthopedic condition or injury by using fat tissue from the patient's body. The minimally invasive surgical procedure can be performed in less than an hour on an outpatient basis.

  Lipogems treatment, FDA-cleared for use in orthopedic and arthroscopic surgery, is provided at the hospital by **Michael Brown, MD,** orthopedic surgeon. For more information about the procedure, visit www.understandlipogems.com. For questions or appointments, please contact Dr. Brown at 707-938-3870.

- **Paul Roache, MD**, has opened an orthopedic practice in Sonoma specializing in arthroscopic shoulder surgery for rotator cuff injury. Dr. Roache is board certified in both orthopedic surgery and orthopedic sports medicine. He has developed an opiate-sparing pathway and integrative approach to maximize patient recovery that includes acupuncture, chiropractic, Chinese Medicine, and yoga, as well as physical therapy.

  More information is available and appointments with Dr. Roache at Sonoma Valley Specialty Physicians Clinic can be scheduled through www.shouldereducation.com.

- **Stanley Jacobs, MD,** has written a book, *Nefertiti's Secret,* which chronicles his quest to track down the ingredients of an ancient Egyptian formula for youthful skin. Jacobs' resurrection of the formula revealed a new molecule in skin rejuvenation, and is scientifically proven to improve the plumpness and elasticity of skin by 30 percent. The book is now available on Amazon.com, and can also be ordered at a cost of $15 by calling Dr. Jacobs' office at 707-473-0220.

To post an item on the Bulletin Board, contact Rachel at 707-525-4375 or rachel@scma.org.

- In March, **Adventist Health Ukiah Valley** announced the inaugural class of six residents for the new Family Medicine Residency Program. This long-anticipated event marked the launch of the program, which is focused on the full scope of rural family medicine in Mendocino and Lake counties.

  The residents begin their three-year training in July and will spend the first year focused on hospital-based training in the Sacramento area and at UC Davis. The first year will include hospital training in adult medicine, pediatrics, obstetrics, emergency medicine and critical care. They will spend their second and third years in Mendocino and Lake counties to complete their full scope primary care training.

  Over 600 applications were received from medical students across the U.S. and around the world. The program will accept six new residents each subsequent year, and graduate six board certified family doctors every year starting in 2022. For more information, contact AHUV Family Medicine Residency program coordinator Megan Miltimore at miltimm@ah.org or 707-467-5252.

- After a year of planning and remodeling, **Sutter Lakeside Hospital** opened the **Sutter Lakeside Medical Practice** in late 2018 at Creekside Medical Plaza. The medical practice includes primary care, diabetes education and podiatry services, all under the same roof at 987 Parallel Drive, Suite C in Lakeport.

  Sutter Lakeside Medical Practice recently expanded its initial services to include general surgery. Patients no longer have to travel out of the area for colonoscopy, endoscopy, gastrointestinal surgery, hernia and more—now available in Lakeport. To refer a patient, call 707-262-5088.

EVENTS

- **Save Monday, Sept. 30,** for the **HOSPICE GOLF CLASSIC** at beautiful Santa Rosa Golf and Country Club. SCMA is supporting this important annual event as a media sponsor. We encourage you to play in the tournament and enjoy what is going to be a phenomenal day on the links!

  Funds raised at the Hospice Golf Classic support **St. Joseph Health Hospice** community programs and services, including grief support, volunteer services, and community education throughout Sonoma County. For more information or to purchase a foursome, please contact the Hospice Philanthropy office at 707-522-3622.

- **Saturday, June 15**, at Mendocino College Center in Ukiah: Rural Health Rocks presents "Music Is Medicine," an annual fundraiser put on by the nonprofit Family Medicine Education for Mendocino County (FMEMC), benefiting the AHUV Family Medicine Residency Program and celebrating the inaugural class of resident physicians. Tickets and more details available at www.ruralhealthrocks.com.

Physicians' BULLETIN BOARD

CLASSIFIEDS

- **Medical student seeking summer internship** or learning opportunity. SCMA Health Careers Scholarship recipient now finishing second semester at University of San Diego would like to further explore medical interests this summer. Considering a career as a physician or physician's assistant, but open to gaining insight and knowledge about healthcare systems, culture, ethics and integrated professions.

  Previously completed the SRJC Summer Health Career Institute summer program and shadowed a Santa Rosa cardiothoracic surgeon. Hoping to help in an ER or ICU setting, but would appreciate any opportunity in the local medical community! If you have an opening or idea about where I could contribute and learn, please contact me: Nathalie Nava at 707-527-2342 or nnava@sandiego.edu.

- **Petaluma medical office space for lease:** Petaluma Valley Medical Center, 108 Lynch Creek Way #7, Petaluma. 988 sq ft, end unit with lots of light. Completely remodeled in the last few months. 3 exam rooms, 1 provider office with separate entrance. Large storage area. Rental rate dependent on length of term. Walking distance to Petaluma Valley Hospital. Call Corinne at 707-540-9903 for additional information.

SCMA & MLCMS 2019–20 Calendar of Activities

MAY
- **8:** Physician Investment Club Dinner
- **14:** SCMA|MSSC Board Meeting
- **15:** MLCMS Medical Cannabis CME Dinner—Ukiah
- **16:** SCMA Medical Cannabis CME Dinner—Santa Rosa
- **18:** 26th Annual HIV/AIDS Review—Santa Rosa
- **22:** MOMs 2.0 (Medical Office Managers/Professionals) Meeting
- **28:** Editorial Board Meeting
- **29:** Physician Appreciation Mixer at Fulton Crossing Gallery

JUNE
- **1:** District X Caucus at Villa Capri, Fountaingrove
- **2:** Mountain Play—*Grease* at Mt. Tamalpais Outdoor Theatre
- **25:** SCMA Executive Committee Meeting
- **26:** Physician Investment Club Dinner
- **28:** Broadway Under the Stars—*A Chorus Line* at Jack London State Historic Park / **SCMA Night**

JULY
- **6-13:** CME Rome to Venice Cruise
- **9:** SCMA/MSSC Board Meeting
- **18:** Women in Medicine—Presenter Debra Phairas: "Having it All!"
- **24:** MOMs 2.0 (Medical Office Managers/Professionals) Meeting
- **24-26:** AMSE Annual Conference
- **26:** *North Bay Business Journal* / SCMA Healthcare Conference

AUGUST
- **7:** Retired Physicians Meeting
- **8:** SCMA Spirits Tour at Young & Yonder—Young Physicians / Women in Medicine / Solo & Small Practice
- **16:** Mandatory Sexual Harrassment Training—Santa Rosa a.m. | Ukiah p.m.
- **21:** MOMs 2.0 (Medical Office Managers/Professionals) Meeting
- **27:** SCMA Executive Committee Meeting
  Physician Wellness Committee Meeting
- **29:** Solo/Small Group Physicians Meeting

SEPTEMBER
- **10:** SCMA|MSSC Board Meeting (review proposed 2020 budget)
- **13:** Center for Well-Being "Celebration of Dreams" / **SCMA Fitness Champion sponsor**
- **18:** Integrative Medicine Forum
- **24:** Women in Medicine at Tongue Dancer Wines
- **25:** MOMs 2.0 (Medical Office Managers/Professionals) Meeting
- **30:** St. Joseph Health Hospice Golf Classic at Santa Rosa Golf & Country Club / **SCMA media sponsor**

OCTOBER
- **10:** Latino Health Forum at Sonoma State University / **SCMA sponsor**
- **22:** SCMA Executive Committee Meeting
- **25:** MEC Meeting—Anaheim
- **26:** CMA Presidential Gala—Anaheim
- **26-27:** CMA House of Delegates—Anaheim
- **29:** Fire Recovery Resources Workshop

NOVEMBER
- **12:** SCMA|MSSC Board Meeting (finalize/approve 2020 budget)
- **20:** Committee for Healthcare Improvement Meeting
- **27:** MOMs 2.0 (Medical Office Managers/Professionals) Meeting

DECEMBER
- **6:** Health Action Committee
- **17:** SCMA Executive Committee Meeting

JANUARY 2020
- **1:** New Year's Day Hike—Physician Wellness Event
- **4:** Women in Medicine—Champagne Social
- **21:** SCMA Executive Committee Meeting
- **24:** SCMA Awards Gala—Santa Rosa Golf & Country Club

For updated activities, see *News Briefs*, delivered to your Inbox monthly!

Additional PMF workshop venues, fire recovery workshops, Physician Wellness activities and networking events will be added to the calendar as details are finalized. For more information about scheduled activities, see the event page at **www.scma.org** or contact Rachel Pandolfi at 707-525-4375 or rachel@scma.org.

CALIFORNIA MEDICAL ASSOCIATION'S PHYSICIAN WELLNESS PROGRAM

PROGRAM SUMMARY

Levels of physician burnout are reaching epidemic proportions in the United States, with vital repercussions for the entire nation's health care delivery system. To address this critical issue, the California Medical Association (CMA) — in conjunction with content experts Tait Shanafelt, M.D., and Mickey Trockel, M.D., of Stanford University's WellMD — is offering a broad scope of programs and services to enhance physician fulfillment.

Determinants of physician well-being include practice environment and organizational cultural, as well as physician choices and personal resilience. CMA's wellness program encompasses a breadth of offerings ranging from organizational assessment to individual physician wellness.

MEDICAL GROUP OFFERINGS

Recognizing that medical groups have a compelling interest in physician well-being, the program maintains a strong focus on identifying systemic issues impacting physician fulfillment.

COMPARATIVE DATA

A statewide survey of physician professional fulfillment and burnout will be conducted annually, providing medical group access to comparative data. A representative sample of more than 3,000 practicing California physicians will provide baseline data to develop benchmarks in the measurement of California physician well-being, identify trends and guide enhancement of resource offerings. A secondary survey will be offered to physicians displaying high levels of burnout, which will assess depression, anxiety, sleep related impairment and suicidal ideation. The data secured from this psychometrically-validated survey will enable medical groups to assess internal levels of physician fulfillment in comparison to statewide measures.

LEADERSHIP ACADEMY

CMA will conduct a physician leadership academy to enhance skills associated with cultivation of professional fulfillment for first-line physician leaders. Target participants for this program will include division chiefs, department chairs and clinic/practice leaders. The academy will involve skills assessment, personalized coaching, online training and in-person workshops. The academy will also provide first-line leaders with the knowledge base, analytical abilities and skill set to create a culture of wellness. In addition to the leadership academy, select senior leaders of large organizations may have the opportunity to participate in Stanford Medicine's Chief Wellness Officers course.

ACTIONABLE DATA

Medical groups will receive the opportunity to utilize a tailored survey tool to identify and analyze issues unique to specific institutions. Information obtained from this personalized survey will enable development of actionable recommendations in areas such as values alignment, engagement, staffing strategies and policies. Because the survey will be conducted in a neutral environment with a stringent focus on confidentiality, the likelihood of securing unfiltered perspectives will be increased.

ADVOCACY

Metrics identified through the research tools will provide CMA's advocacy with evidence-based data, enabling proactive development of strategies to influence legislative and regulatory policies impacting physician wellness. CMA will also advance policies that protect physicians from adverse professional consequences from seeking assistance for mental wellness.

CONFIDENTIAL SERVICES FOR PHYSICIANS

A full, scalable suite of services will be available to physicians at all levels of the burnout spectrum.

PHYSICIAN OFFERINGS

CALIBRATION TOOLS

Physicians will have access to online interactive tools allowing for self-calibration of well-being. The online programs will employ cognitive and behavioral strategies tailored to the unique needs of physicians. Interactive feedback will be offered to help physicians advance on the continuum of behavioral change. The availability of Continuing Medical Education (CME) credit for participation in online modules will further incentivize physician participation.

ONLINE MODULES

Educational modules will provide physicians with tools for mental health promotion. Strategies will be presented for physicians to optimize self-care through compassionate self-improvement, enhanced community and fostering meaning in work. CME credit will be offered for online educational modules as appropriate.

COMMUNITY GROUPS

Small, local communities of physicians will be organized with the goal of cultivating meaning in work and providing support to colleagues. Physicians from all specialties, practice settings and age/gender/ethnicities will form groups of seven to eight colleagues to meet regularly in convenient locations. The groups will receive support in the form of group leader training, discussion questions and feedback forms, and initial financial support for meals. CME credit may also be offered for the meetings.

COACHING/COUNSELING

Physicians will have personal, confidential access to a centralized statewide coaching program. Physician-trained clinical psychologists and life coaches will support those experiencing mild to moderate burnout. All information obtained through these activities will be protected to the fullest extent allowable by law.

INTENSIVE RETREAT

A week-long retreat will be available on a quarterly basis for physicians experiencing severe burnout. The retreat will incorporate formal mental health screening, counseling, coaching and self-care strategy development.

CRITICAL EVENT MANAGEMENT

A peer support program will be coordinated to mitigate risk for distress among physicians involved in critical event situations such as a perceived medical error or malpractice threat. The peer-to-peer program will be supplemented by online resources to mitigate self-deprecating cognitive effects and increase awareness of possible clinical-performance benefits of seeking support.

RAPID ACCESS

A confidential assistance hotline will be available to physicians in crisis, and the hotline will be staffed by trained personnel who have demonstrated experienced with issues unique to physicians. Additionally, a network of health care providers will provide rapid access to treatment for physicians throughout California who are experiencing severe distress and/or suicidal ideation. This rapid access network will be comprised of psychologists and psychiatrists who also have the requisite experience to provide mental health care for physicians.

CME CREDIT

As a means of encouraging physician involvement in wellness activities, CME credit will be offered as extensively as possible for program involvement.

GOAL

The physician wellness program will develop highly engaged, dedicated physicians who practice in thoughtfully designed environments, resulting in optimal quality patient care.

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CALIFORNIA MEDICAL ASSOCIATION'S

2018 YEAR IN REVIEW

$1 BILLION

Secured the Proposition 56 supplemental budget bill, which appropriates over $1 billion in funding for improved access to care.

Achieved record-setting 6.3 percent increase in membership with a 92.2 percent retention rate. %

Defended the medical profession and patients from dangerous legislation, including AB 3087 (Kalra).

Drafted and filed a 2020 Sugar-Sweetened Beverages tax ballot initiative.

Helped the Tulare Regional Medical Center medical staff restore independence and self-governance against the hospital.

Stopped predatory practices by health insurance companies, including attempts to substantially limit same-day services (modifier -25 payments).

Recouped nearly $11 million from payors on behalf of CMA's physician members – a record year!

Launched a mobile app, as well as updated brands and websites for CMA, PHC, CALPAC and 20+ component medical societies.

Secured $30 million commitment from Blue Shield of California to support the launch of a Physician Services Organization.

Secured $200 million to establish a loan repayment program and $40 million for the University of California to support, retain and expand physicians trained in California.

Visit cmadocs.org for more information and to see full annual report.

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